

# AUTOMOBILE SPECIALTIES

MANUFACTURERS

DIRECT

REPRESENTATIVES

ASCH AND COMPANY  
INCORPORATED

179 BROADWAY N.Y.



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**ASCH and COMPANY,**  
INCORPORATED

1779 BROADWAY  
NEW YORK, N. Y.

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**TO THE TRADE:**

**T**HE firms listed on the following page have appointed us their selling agents in the Eastern Territory.

¶ We carry in New York a fairly complete stock of the entire line of our various Manufacturers and fill most orders the day the order is received. With the exception of bulky and heavy merchandise, the price is the same F. O. B. New York as F. O. B. Factory.

¶ We will endeavor to show our appreciation of your business by our prompt attention.

**Established 1908**  
**Incorporated 1913**

# ASCH and COMPANY,

INCORPORATED

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## OUR FACTORIES:

L. P. HALLADAY CO.	Streator, Ill.
METAL SPECIALTIES MFG. CO.	Chicago, Ill.
E. EDELMANN & CO.	Chicago, Ill.
W. H. HOOVER CO.	New Berlin, Ohio
STANDARD STEEL BOX CO.	Bridgeville, Pa.
UNIVERSAL CAR EQUIPMENT CO.	Detroit, Mich.
PERRIN MFG. CO.	Detroit, Mich.
J. C. CONN	New York, N. Y.
MOTOROPE COMPANY	New York, N. Y.
WAGNER SPECIALTY CO.	New York, N. Y.
SECURITY CO.	Pittsburgh, Pa.
PEDERSEN LUBRICATOR CO.	New York, N. Y.
GIBSON HOLLISTER CO.	Jamaica Plains, Mass.
MICHIGAN STORAGE BATTERY CO.	Detroit, Mich.
INTERNATIONAL STAMPING CO.	Chicago, Ill.
PREMIER ELECTRIC CO.	Chicago, Ill.

# Perrin "No Glare"

For Auto Headlights

## *Drive At Night In Safety*

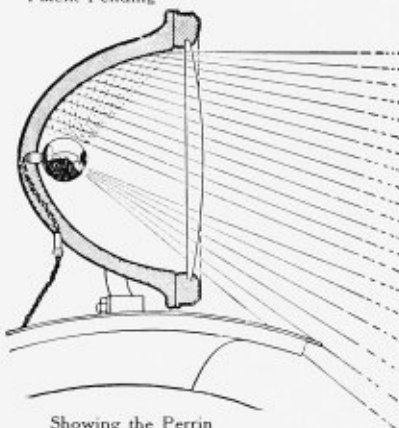
**Absolutely eliminates the glare without decreasing the driving light.**

Does Not Dim The Light.  
Takes The Place of a Dimmer.  
No Buttons to Push.

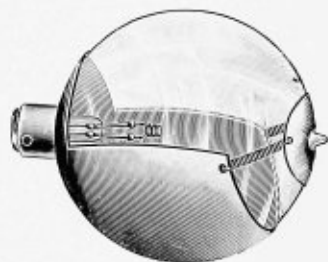
Drive From City Streets to  
Country Roads Without  
Change.

Conforms with State and  
Local Ordinances.  
New Jersey License No. 10.

Patent Pending



Showing the Perrin  
No Glare in Action



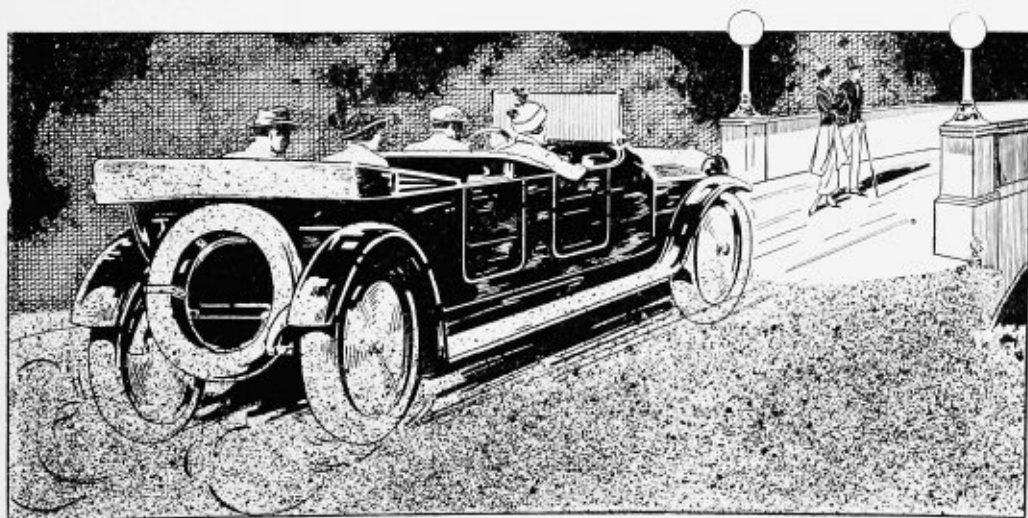
**Made of Aluminum in  
two pieces, holds firmly.**

**\$1.00 PER SET.**

FOR EITHER G 16½ OR G 12 HEADLIGHT BULBS.

Concentrates all the light out and down on the road. Does not blind other drivers or people walking. The beam of light is not over 4 ft. above the level of the road. Made of aluminum. Snaps around the light bulb. Will not break the bulb. Takes the place of a dimmer. No levers to turn. No buttons to push. Always ready. Recommended by Police everywhere as being best safety device and only one that gives driving light at all times.

***If one driver can see—Both drivers are safe.***



## PEDERSEN LUBRICATOR FOR FORD CARS



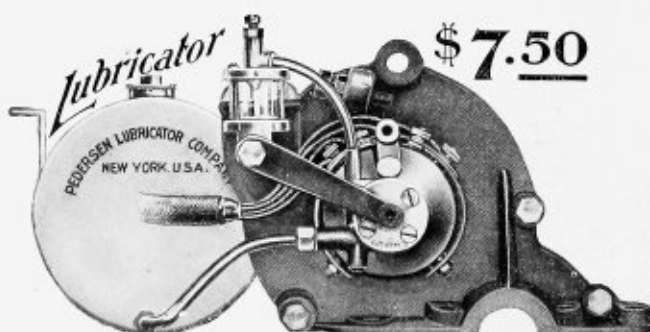
OIL YOUR "FORD"  
FROM THE SEAT

Install a Pedersen Lubricator on your car and make it last for years. It saves you money, trouble and worry. Ask your dealer or write

Insures proper Lubrication of the Motor by keeping the oil level constant. Thus, Longer Life, smoother running, more power and fewer repair bills. **Absolutely Automatic.** Drive hundreds of miles with one filling of tank.

Consists of an oil pump, sight feed for dash, one gallon copper tank and all necessary tubing cut to length, ready to mount. - - Price \$15.00

## PEDERSEN JUNIOR LUBRICATOR



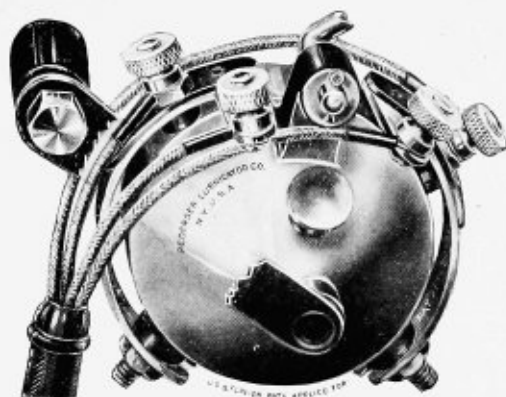
Similar to other model and operates exactly the same way.

Consists of half gallon galvanized tank, oil pump sight feed placed on breather tube, all necessary tubing cut to length, ready to mount. Price \$7.50

*EITHER TYPE APPLIED TO CAR IN FIFTEEN MINUTES.*



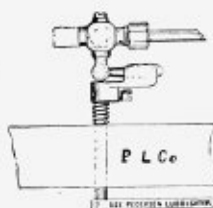
## PEDERSEN "UNITED" TERMINALS



The "United" Terminals bring all the wires on the top of the timer, preventing them from getting oil soaked with consequent short circuiting, also prevents twisting or straining at their connections. Connecting and disconnecting of the wires is easily done without removing the timer, and it can always be seen at a glance if connections are properly made.

*Applied in a Few minutes.*

Price . . . . . 50 cents



## PEDERSEN "HANDY" GASOLINE TURN-OFF.

This device is specially designed for the Ford model "T" touring car and enables one to instantly turn off the gasoline from the outside of the car. The use of this device will often be the means of preventing serious accidents, and it will save money in gasoline.

*Applied to Car in a Few minutes.*

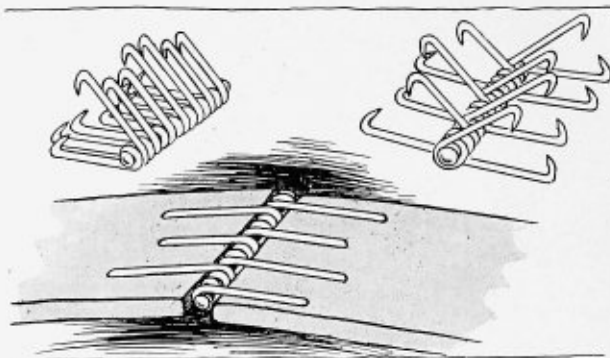
Price . . . . . 50 cents

## CONN BELT HINGES FOR FLAT LEATHER AUTO FAN BELTS

They hold on old belts as well as in new leather.  
Saves the Belt Ends from breaking. The hinge  
will last until the belt needs shortening.



Straightens  
with  
Belt

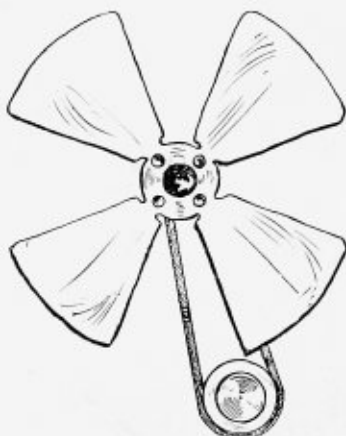


Bends  
Around  
Pulley

COME IN RIVETED SECTIONS—READY FOR INSTANT USE



then put belt  
ends  
between the points



by turning each  
alternate hook back



and beat down with  
hammer or monkey wrench

The joint runs around small pulleys at any speed without Noise.

No preparation of belt necessary. No holes to punch.

Packed one dozen hinges in a strong screw-top mailing case to fit in tool kit.

The awl points on the wire hinges force their own way thru the leather.

### MADE IN THREE SIZES

No. 2 for flat belts $\frac{7}{8}$ or 1 inch wide	. . . . .	\$ .75 doz.
No. 3 for flat belts $1\frac{1}{4}$ inches wide	. . . . .	1.00 doz.
No. 4 for flat belts $1\frac{1}{2}$ inches wide	. . . . .	1.00 doz.



THIS TRADE MARK ON EACH TUBE

### PATENTS :

SEPTEMBER 28, 1898  
OCTOBER 11, 1898  
AUGUST 16, 1904  
JANUARY, 10, 1905

## LITTLE GIANT CAUSEWAY

*It Will Get You Out of the Deepest Sand or Mud*



Lays a corduroy road on which wheels mount. Paves the way back on to the good road. Stays firm in mud, sand or snow. Being flexible, conforms to most uneven road surfaces and stays put. Indispensable touring equipment. Pays for itself on first trip over bad roads. Better to *have* the LITTLE GIANT, than to wish you had.

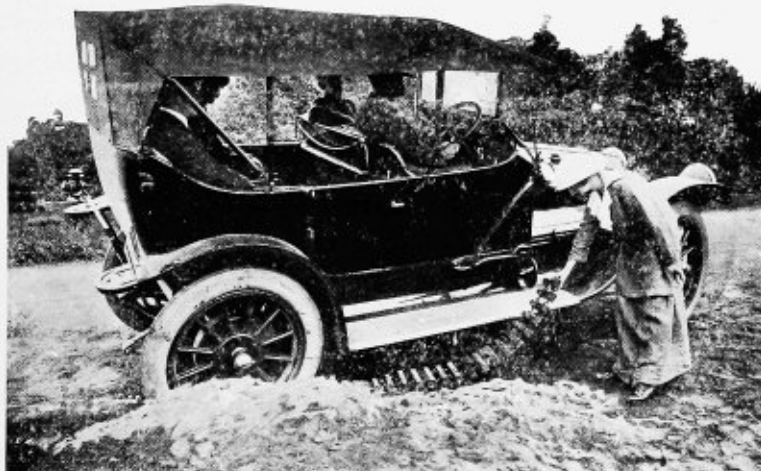
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Very simple. Any woman or child can use it. Sold in pairs. Light weight, compact, indestructible. Packs into small space. Rolled up, may be used as foot cushion. Can be carried under the running boards entirely out of way. An absolute necessity for truck users. Garagemen who send relief service cars into the country can use two or three sets.

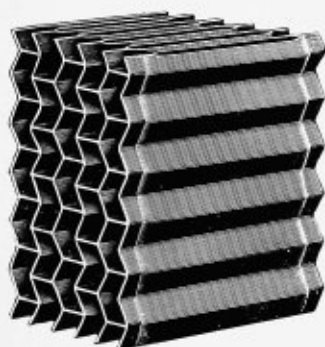
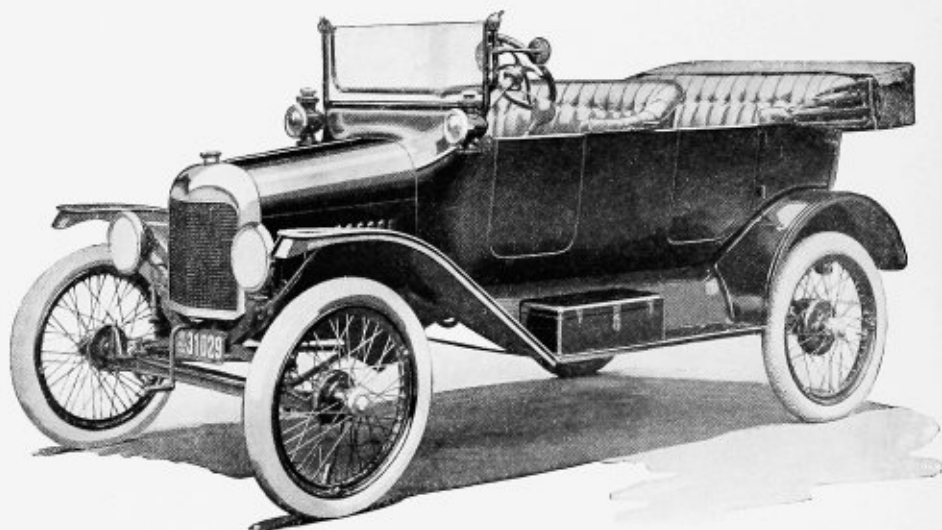
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Even where there are macadamized roads, it may be necessary at times to make a detour or courtesy may place the car on the side of the road where the wheels get no traction. Then the Little Giant Causeway becomes a practical necessity.

For pleasure cars, \$9 per pair. For trucks, \$11 per pair.



# The Universal "V" Type Radiator



## Cellular Construction of Radiator

One gallon of water in the Universal will last five or six times as long as the same amount in other radiators.

This Radiator and Hood add the one supreme touch to the Ford Car. It gives it an air of distinctiveness and quality which places it at once in the class of high grade cars.

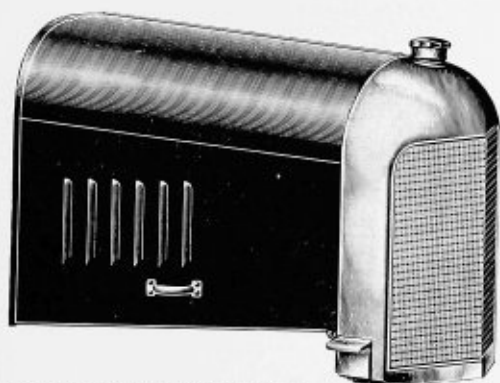
The illustrations herewith show, better than words, the refinement of appearance that this outfit gives to the Ford. The Radiator and Hood conform so nicely to the lines of the car that they do not give the effect of having been added as an after thought, but become a homogeneous part of it, giving it the complete finish and aristocratic appearance so much sought after by designers of high priced cars.

The Hood itself is, of course, designed to add primarily to the appearance of the car. The Radiator adds not only to the appearance but also very largely to the efficiency.

The Hood is made of heavy sheet steel with stream line and rounded top conforming to the shape of the radiator and the body of the car. The side hinges are concealed. All hinges are continuous the whole length of the hood and hinge rods are of cold rolled steel.



# Stream Line Hood for Ford Cars



**Not Injured by Freezing. Will Not Boil. Great Cooling Capacity. Minimum Evaporation. Rapid Circulation. Beauty of Design. Exceptionally Strong.**

It is ventilated as shown in cut. No rivets are used, making a perfectly smooth surface.

It is fitted perfectly so that there is no rattle and can be adjusted to the car with very little labor. It is beautifully finished in black enamel.

The Universal "V" Type Radiator and Hood is especially attractive with the Cowl Dash Ford, as it carries out on the stream line effect to perfection.

**The Universal Radiator** is fully protected by recent valuable patents and embodies an

entirely new principle which revolutionizes pre-conceived ideas of radiator construction. In place of individual tubes or cells it is built up of continuous strips of tough corrugated brass sheets forming one complete unit of great cooling capacity, very strong, yet light in weight. Between these corrugated sheets is a thin, wide water channel through which the water passes in a zig-zag but constantly downward way. In case of freezing this thin column of water in these channels expands but slightly and the tough corrugated walls of the water channels spread sufficiently to take care of this expansion, without breaking any joints, and return to their original position when the water is thawed, absolutely preventing leakage.

The shocks and jars which cause the gradual disintegration of old style radiators are absorbed in this new corrugated construction thus obviating the most common source of leakage, making the Universal **practically everlasting.**

Water capacity: Four Gallons. The test of efficiency of a radiator is not the quantity of water carried but the volume of water cooled. The Universal has thirty-six square inches of radiating surface for each frontal square inch. Twenty-five gallons of water flow through the radiator per minute without pressure. This large radiating surface, combined with the rapid circulation, make the Universal the most efficient radiator ever designed. It also renders unnecessary carrying an excessive amount of water which means additional weight in front of the car, where it is most objectionable.

**Price of Radiator complete with Stream Line Hood and Ledge, Polished Brass or Black Enamel . . . . . \$45.00**  
**Nickle Plated Extra . . . . . 2.50**

## PLAIN LEATHER STRAPS

Extra Strap for Tire Brackets, License Tags, Bow Rests, etc.



### No. 211-C Harness Leather Strap, Buckle Riveted On

	9	12	15	18	21	24	30	36	42	48
1/2 inch	\$4.00	\$4.80	\$5.50							
5/8 inch	5.00	6.00	7.00	\$8.00	\$10.00	\$11.50	\$15.00	\$19.00		
3/4 inch		7.50	9.00	13.00	14.00	15.00	18.00	22.00		
7/8 inch			10.50	14.50	16.00	17.50	21.00	26.00	\$31.00	\$38.00
1 inch					17.50	19.00	24.00	29.00	35.00	45.00

### No. 111-C Harness Leather Strap, Buckle Sewed on

	12	15	18	21	24	30	36	42	48	54
5/8 inch	\$10.00	\$11.00	\$12.50	\$14.00	\$16.00	\$22.00				
3/4 inch	10.50	12.00	16.00	18.00	20.00	24.00	\$28.00			
7/8 inch			20.00	22.00	24.00	28.00	33.00	\$40.00	\$47.00	
1 inch			24.00	26.00	28.00	32.00	37.00	44.00	51.00	\$59.00

## Double Stitched Split Leather Straps

Price Per 100	18	21	24	27	30	33	36	39	42
Width 5/8	\$ 8.00	\$ 9.00	\$10.00	\$11.00	\$12.00				
3/4	10.00	11.00	12.00	13.00	14.00				
7/8	11.50	12.50	13.50	14.50	15.50	\$17.00	\$18.00	\$20.00	\$22.00
1	13.00	14.50	16.00	17.50	19.00	21.00	23.00	25.00	27.00

## MISCELLANEOUS STRAPS



### Extra Quality Heavy Waterproof Web Strap

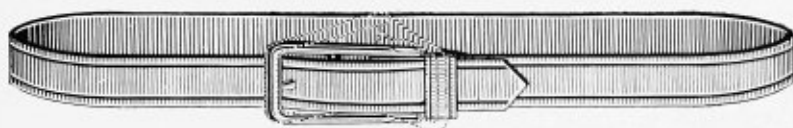
This Web has been thoroughly tested by Auto Manufacturers. Has the wearing qualities of leather.

Price Per 100	18	21	24	27	30	33	36	39
1 in.	\$15.50	\$17.00	\$18.50	\$20.00	\$21.50	\$23.00	\$24.00	\$26.00

## PLAIN WEB STRAPS FOR ALL PURPOSES

Price Per 100	12	15	18	21	24	27	30	33	36
Width 5/8	\$3.00	\$3.30	\$3.60	\$3.90	\$4.20	\$4.50	\$4.80	\$5.10	\$5.40

## TRUNK STRAPS



Best grade Harness Leather. Regular Buckle or Hoover patented take-up Buckle.

	1x60	1 1/4x72	1 1/4x84	1 1/4x84	1 1/4x96	1 1/4x108	1 1/4x120
Price each Reg. Buckle	\$ .70	\$ .86	\$ .96	\$1.06	\$1.22	\$1.36	\$1.54
Patented take-up Buckle	.80	.96	1.06	1.16	1.32	1.46	1.64

ADD 10% FOR RUSSET LEATHER

Web Strap Each, 1 1/4	.20	.24	.28		.32	.36	.40
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## CRANK BOOTS



No. 1



No. 2



No. 1 1/2

No. 1 Moulded harness leather boot closed end, one piece strap	Price each	\$ .38
No. 2 Same as No. 1 open end	Price each	.38
No. 1 1/2 Harness leather boot closed end, two piece strap	Price each	.24
No. 2 1/2 Ford, both ends open	Price each	.15
No. 3 1/2 Ford, closed end	Price each	.16

## LEATHER FAN BELTS FOR ALL CARS



Oak Leather Belts For Ford Cars.

Made from Best Stretched Oak Belting.

Does Not Stretch or Slip.

### OUR BEST SELLER FOR FORDS

No. 1, Per 100,  $1\frac{1}{8}$ , \$28.00; 1 in., \$26.00.

*Also made of genuine vegetable tanned Latigo Leather.*

No. 2 Belt, per 100,  $1\frac{1}{8}$ , \$28.00; 1 in., \$26.00.

Overland Flat Belts, per C, \$40.00.

Dodge Belts, per C, \$30.00.

### COMPETITION FAN BELTS

Good wearing belts for Ford cars made of double and stitched leather, 2 row stitching. Thousands of these belts are in use to-day.

No. 10, Oak Split Leather, per 100,  $1\frac{1}{8}$ , \$22.00; 1, \$20.00;  $\frac{7}{8}$ , \$18.00.

No. 20, Latigo Split Leather, per 100,  $1\frac{1}{8}$ , 22.00; 1, 20.00;  $\frac{7}{8}$ , 18.00.

### BELTING IN REELS

Extra quality flat oak tanned belting in reels of  
25, 50 or 100 ft. per foot,

$\frac{5}{8}$	10½c
$\frac{3}{4}$	11c
$\frac{7}{8}$	11½c
1	12½c
$1\frac{1}{8}$	13½c
$1\frac{1}{4}$	15c



V-Belting for Automobile Fans

Price per foot . . . . . 24 cents



## OVERLAND V SHAPE FAN BELTS



Made to fit New Model Cars. Best quality oak belting.

Price per hundred . . . . . \$70.00

## STEERING GEAR BOOTS FOR FORDS



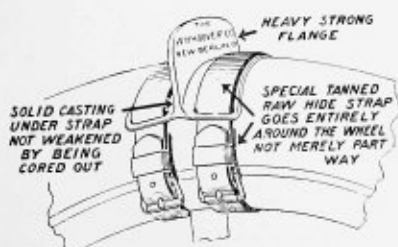
Enables the joint to be packed with grease doing away with wear and rattle.

Three to a set, laces included. Made of water proof leather.

Price per set . . . . . 80 cents



## HOOVER MUD HOOK



Here's the hook that you've said some day would come; a solid casting with two 1 1/4 in. special tanned rawhide straps to hold it securely in position.

Notice how the straps run all the way around the mud hook instead of being riveted to one side. This is important as the rivets are apt to tear out under the very severe strain when the wheel revolves.

Notice further that no metal is cut away to keep down the cost. We've made it solid because the strength is necessary.

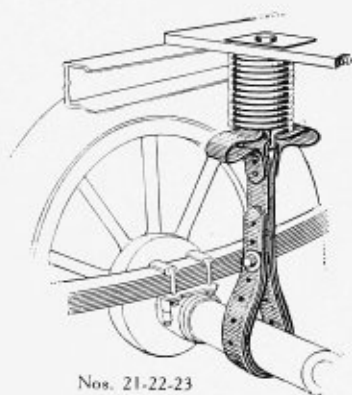
*Furnished with Web Straps.*

Price each No. 1 \$1.00  
No. 2 1.10

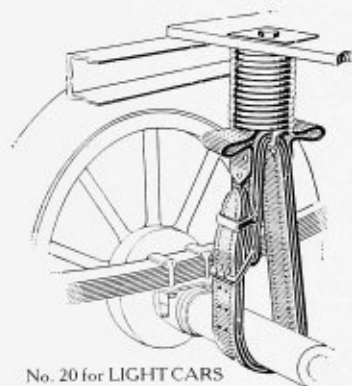
Shipping weight and packed for Parcel Post 3 pounds each

Price each No. 1 . . . . . 50 cents  
" " " 2 . . . . . 55 cents

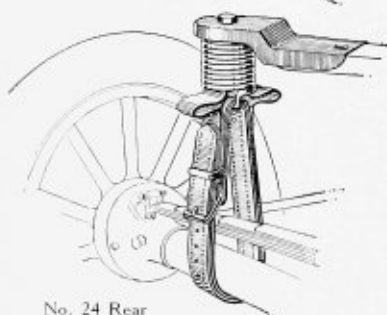
## HOOVER SHOCK ABSORBERS AND REBOUND STRAPS COMBINED



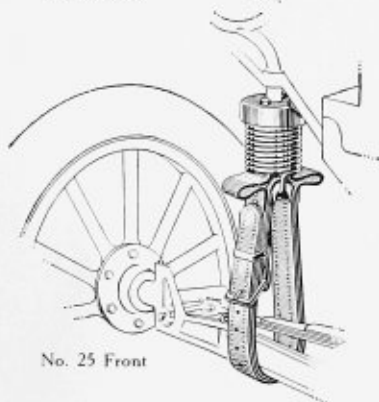
Nos. 21-22-23



No. 20 for LIGHT CARS



No. 24 Rear



No. 25 Front

Prevent the jars and jolts of motoring and save the springs of the car.

Simple, positively nothing to get out of order. Does not interfere with the downward movement of the car springs. The latigo leather straps are guaranteed not to be affected by heat, cold, moisture, water, mud, etc., nor will they show any visible wear after years of use.

The Hoover is not attached to the axle and cannot therefore interfere with the downward movement of the car body. There is no noise from the Hoover as there is but one metal part, the rest being leather.

No. 20 for LIGHT CARS-1000-1500 pounds. Per Pair **\$5.00**

*Such as Saxon, Metz, Twombly, etc.*

*Shipping weight packed for Parcel Post 5 pounds per pair*

No. 21 for cars 1500-2500 pounds. Per Pair **\$7.00**

No. 22 for cars 2500-3500 pounds. Per Pair **\$8.00**

*Such as Overland, Buick, Maxwell, Reo, etc.*

*Shipping weight packed for Parcel Post 6 pounds per pair*

No. 23 for cars 3500-5000 pounds. Per Pair **\$9.00**

*Such as Packard, Stevens-Duryea, Peerless, etc.*

*Shipping weight packed for Parcel Post 7 pounds per pair*

## FOR FORDS.

The Principle of Hoover's Shock Absorber for Fords is the same as models 21, 22 & 23 attaching plate specially designed to fit Ford cars, nothing to get out of order, no enclosed places for mud or dirt to collect. Satisfaction guaranteed.

No. 24 Rear Springs. Fits all FORD Models. Per Pair **\$7.00**

*Shipping weight packed for Parcel Post 10 pounds.*

No. 25 Front Springs. Fits all FORD Models. Per Pair **\$7.00**

*Shipping weight packed for Parcel Post 8 pounds.*

## ACTION.

Note the correct mechanical action when rear end of car is started upward by a rebound. Strap hugs tightly around axle, then spring is distended to length of three inches, taking care of an upward pull of 1,000 pounds. When the spring is distended past the safety point the leather loops are lengthened out and form a continuation of strap; upward rebound is then stopped and the car springs are saved from probable breakage and the passengers are spared the danger and inconvenience of being tossed about.

ALL MODELS GUARANTEED AGAINST BREAKAGE.

*Quickly and easily attached. Full instructions with each set.*

## SHOCK-ABSORBING AUTO CUSHIONS

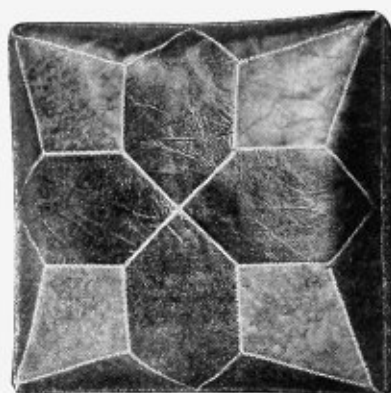


FOR DRIVING SEAT

Absorbs shock and rests the back of Driver, also enables Driver to easily reach foot pedals. Built concave to fit the back.

Spanish Roane leather elastic felt stuffed.

No. 1, 15x15 Stuffed	Price each	\$4.50
No. 2, 16x20 "	" "	5.00
No. 1, 15x15 Design	" "	5.00
No. 2, 16x20 "	" "	5.50



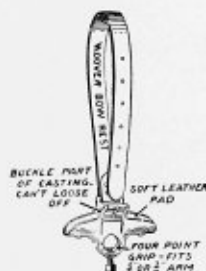
FOR REAR SEAT, CAMP, CANOE, etc.

These cushions are made from very fine grades of genuine Spanish Cow-hide. All pieces are carefully selected and colors blend harmoniously. Stuffed with elastic felt, practically indestructible.

Ideal for lunches on the grass, long country trips, etc.

No. 16, 20x20 Stuffed	Price each	Plain \$5.00
No. 16, 20x20 Design	" "	5.50

## HOOVER BOW RESTS



No. 4 1/2



No. 6



No. 111 A

No. 4 1/2. Our new special metal four point grip bow rest is made to grip either a 5/8 and a 3/4 bow arm.-Patented. When the adjustment bolt is set, four sharp edges and the bolt grip securely on the bow arm, preventing it from working loose.

An important point regarding this bow rest is the fact that it comes fully equipped, with a full leather pad and a 3/4" best grade harness leather strap, all ready to place on the car.

The leather pad protects the bows when the top is down and adds considerably to the appearance of the bow rest.

**Price per pair** . . . . . **50 cents**

*Shipping weight packed for Parcel Post 9 pounds per dozen pair.*

No. 6. Heavy Harness Leather strap with top rest washer, malleable iron rest. Japan buckle.

**Price per pair** . . . . . **50 cents**

*Shipping weight packed for Parcel Post 9 pounds per dozen pair.*

No. 111 A. Full leather covered. The very finest workmanship and material that can be put into a bow rest.

Russet or black leather as desired.

**Price per pair** . . . . . **\$1.75**

*Shipping weight packed for Parcel Post 15 pounds per dozen pair.*

## Jefferson Ford Magneto Lamp Regulator

**FOR  
FORD  
CARS**



**FOR  
FORD  
CARS**

The Jefferson Ford Magneto Lamp Regulator must not be confused with the so-called Resistance "Coils or Dimmers" that are on the market. These devices control the voltage by dissipating the energy in heat.

### NO POWER LOSS

The Jefferson Regulator is built on entirely different lines. It is a perfectly balanced electric device, that eliminates lighting troubles with absolutely no loss of power.

### LAMPS INDEPENDENT

It operates from the magneto and lights the headlights in multiple; *if one light burns out, the other will continue to light*; each headlight is entirely independent of the other.

### DUAL SYSTEM

The Regulator generates both four and six volts. The six-volt allows the installation of a dual system, a six-volt storage battery to be used when the car is standing still and the Regulator when the car is running. Using a storage battery in this manner, it is not necessary to recharge it more than three or four times a season.

### REGULATION

The four-volt circuit is used as a dimmer. It dims the light down about forty to fifty per cent.

### SIGNAL

The horn or other signal device may also be operated from this system.

### INSTALLATION

The installation is simple and can be made in fifteen or twenty minutes. Save time, annoyance and worry by installing the Jefferson Ford Magneto Lamp Regulator. Full instructions accompany each Regulator.

Regulator and Double Throw Switch . . . . .	Price \$2.50
Extra Double Throw Switches . . . . .	" .25
<i>Weight 2½ lb.</i>	

**NOT A RESISTANCE COIL - NOT A RHEOSTAT**

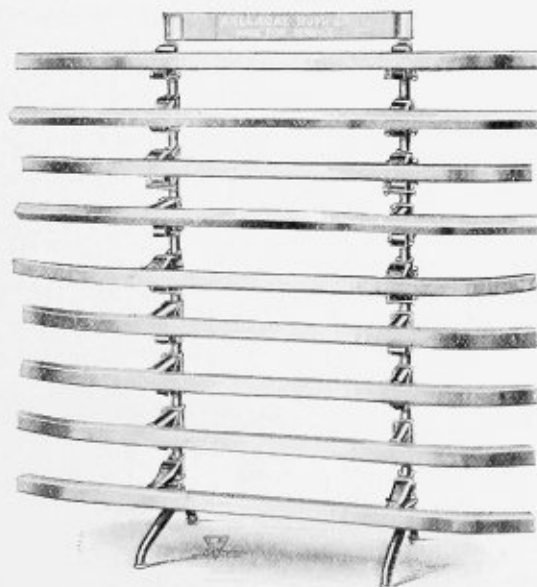


## HALLADAY BUMPERS

Designed for Strength and Built for Service.



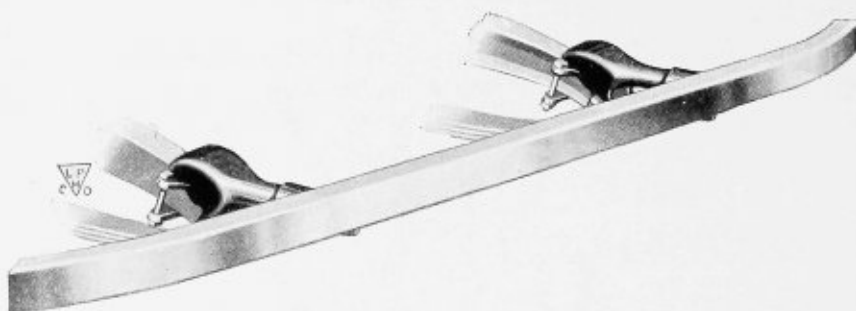
The Silent Salesman of the Bumper Trade.



### HALLADAY BUMPER DISPLAY STAND

Not only are Halladay Bumpers the strongest made, but they are by far the handsomest Bumpers ever offered to the public.

## HALLADAY IMPROVED UNIVERSAL BUMPER

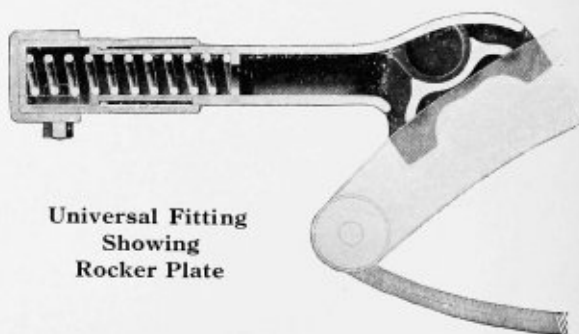


### Designed for Strength and Built for Service.

In the Halladay Improved Universal Bumper we have combined every detail of material, design and workmanship that tends to Strength, Serviceability and Appearance. The frame connections are compact but strong. The shock absorbing mechanism is carefully constructed with extra heavy Vanadium steel springs entirely enclosed and protected from dust and water. The fittings are placed directly on the frame with a rocker device that allows them to be set at any desired angle and to conform with any curvature of the frame extension. By this construction spring bolts and springs are relieved of all strain, the thrust being applied directly to the frame.

The fittings are handsomely finished in hard baked black japan and consequently rust proof. The bars are finished in black japan, polish brass or buffed nickel plate.

The Halladay Universal Bumper is designed for all automobiles having drop front spring hangers which are not enclosed by aprons extending within 5 inches of the end of the frame.



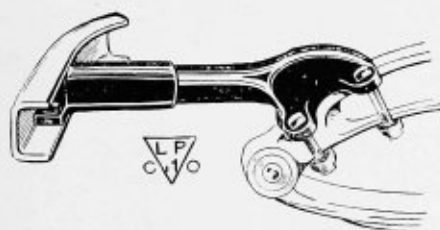
Universal Fitting  
Showing  
Rocker Plate

With the Universal Bumper, we offer two styles of bar. The regular channel bar is of exceptional strength. It is rolled from specially heat treated stock and is unquestionably the strongest channel bumper bar ever made.

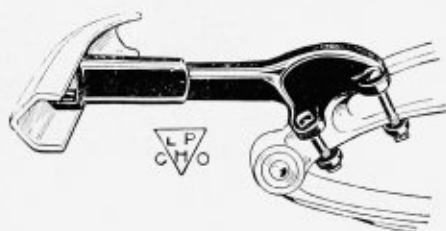
The nature of the metal and its treatment is such that no matter how badly bent through collisions, the bar can be straightened out and returned to its normal form.

Our Diamond Channel bar is the strongest bumper bar ever made. It is 2 inches in width by  $1\frac{3}{4}$  inches deep, rolled from  $\frac{3}{32}$  inch stock to give the diamond effect and yet retain the strength of the channel bar.

## HALLADAY UNIVERSAL BUMPERS



Heavy Channel Bar



Diamond Channel Bar

### PRICES

No. 4	Universal 2 in. x 1½ in. bar, black japan finish.....	\$10.00
No. 5	Universal 2 in. x 1½ in. bar, polished brass finish.....	12.00
No. 6	Universal 2 in. x 1½ in. bar, nickel plate finish.....	12.00
No. 4-W	Universal 2 in. x 1½ in. bar, black japan finish.....	10.00
No. 5-W	Universal 2 in. x 1½ in. bar, polished brass finish.....	12.00
No. 6-W	Universal 2 in. x 1½ in. bar, nickel plate finish.....	12.00

“W” following number designates wide fittings for 2 in. width of frame.

No. 4-D	Universal 2 in. x 1¾ in. bar, black japan finish .....	10.00
No. 5-D	Universal 2 in. x 1¾ in. bar, polished brass finish.....	12.00
No. 6-D	Universal 2 in. x 1¾ in. bar, nickel plate finish.....	12.00

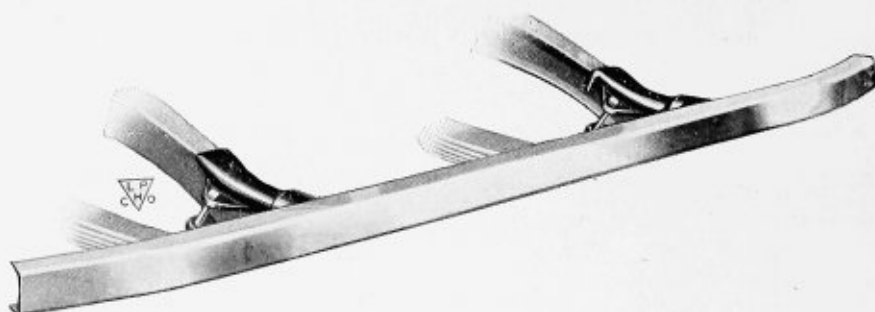
“D” following number designates Diamond Channel Bar.

No. 4-DW	Universal 2 in. x 1¾ in. bar, black japan finish.....	10.00
No. 5-DW	Universal 2 in. x 1¾ in. bar, polished brass finished. ....	12.00
No. 6-DW	Universal 2 in. x 1¾ in. bar, nickel plate finish.....	12.00

“DW” following number designates Diamond Channel Bar with wide fittings for 2 in. width of frame.

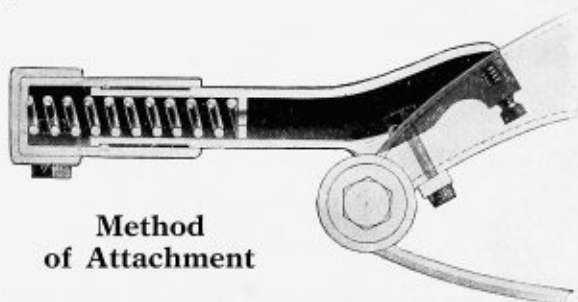
No. 10	Universal 1¾ in. x 1⅝ in. bar, black japan finish.....	9.00
No. 11	Universal 1¾ in. x 1⅝ in. bar, polished brass finish.....	10.00
No. 12	Universal 1¾ in. x 1⅝ in. bar, nickel plate finish.....	10.00

## HALLADAY SPECIAL BUMPER



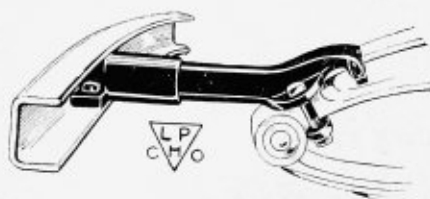
The Halladay Special Bumper is identical in quality with the Universal but designed for all styles of automobiles having open channel frame ends and fits perfectly such cars as the Auburn, Dodge, Maxwell, Buick Light Six, Briscoe, Chandler, Cole and many other standard makes.

The tapered rear end of the frame fitting and the screw clamp under the upper channel of the frame gives a continuous frame effect, combining neatness in appearance with great strength and durability.



Method  
of Attachment

Note the long guideway on the plunger which reduces wear and prevents binding or cutting.



Heavy Channel Bar



Diamond Channel Bar

This Bumper is furnished with either Channel or Diamond Channel Bar.

While the fittings have not the adjustability as to elevation attainable with the Universal, the method of securing them directly to the frame gives extraordinary strength and relieves the spring bolts and springs of all strain, the blow being delivered directly to the forward extension of the frame sides.

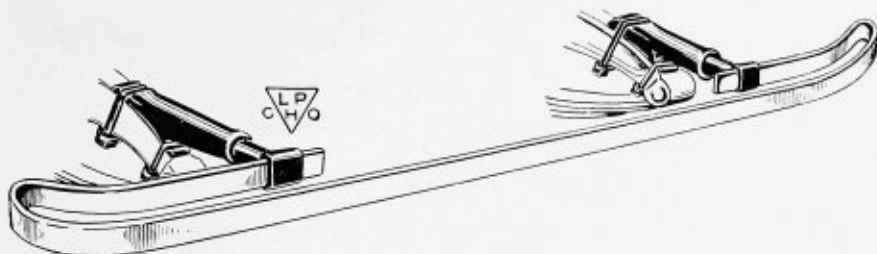
The set screw used in the inside connection provides a grip on the frame greater than can be attained through any clip construction.

### PRICES

No. 1	Special 2 in. x 1½ in. bar, black japan finish . . . . .	\$10.00
No. 2	Special 2 in. x 1½ in. bar, polished brass finish . . . . .	12.00
No. 3	Special 2 in. x 1½ in. bar, nickel plate finish . . . . .	12.00
No. 1-D	Special 2 in. x 1½ in. bar, black japan finish . . . . .	10.00
No. 2-D	Special 2 in. x 1½ in. bar, polished brass finish . . . . .	12.00
No. 3-D	Special 2 in. x 1½ in. bar, nickel plate finish . . . . .	12.00

"D" following number designates Diamond Channel Bar.

## HALLADAY SPRING BAR BUMPER



### DOUBLE EFFICIENCY Attained Through the Combination of a Heavy Spring Bar and Compression Spring Plungers

The Halladay Spring Bar Bumper is the most elastic bumper ever made combining as it does, the flexibility of the heavy flat spring bar and all the elasticity derived from the regular spring plunger of the solid bar type.

The spring bar is one piece of 2-in.x $\frac{3}{8}$ -in. flat spring steel oil tempered. The fittings are practically identical with those of the Simplex Bumpers with a special loop head for securing the bar.

There are no splices or joints in Bar so there is nothing to get out of order, loosen or rattle.

In appearance the Halladay Spring Bar Bumper is light and attractive, being handsomely finished in either hard baked black japan or nickel plate.

The standard fittings are adjustable to practically all makes of cars and we furnish special fittings for Cadillac, Chevrolet and Saxon Six cars.

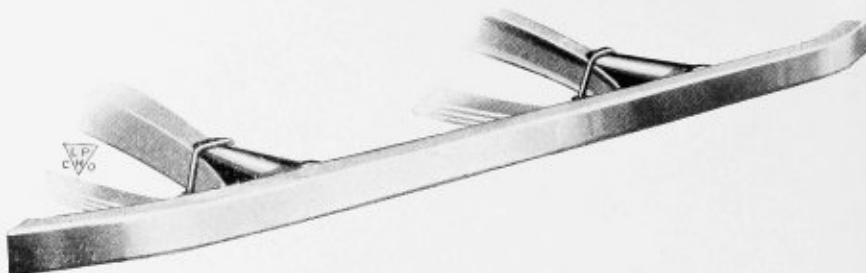
The range of adjustment to different widths of car frame is practically unlimited.

### PRICES

No. 31 Spring Bumper, black japan finish . . . . .	\$10.00
No. 32 Spring Bumper, nickel plate finish . . . . .	12.00
No. 33 Special Cadillac Spring Bumper, black japan finish . . . . .	10.00
No. 34 Special Cadillac Spring Bumper, nickel plate finish . . . . .	12.00
No. 35 Chevrolet 490 Spring Bumper, black japan finish . . . . .	10.00
No. 36 Chevrolet 490 Spring Bumper, nickel plate finish . . . . .	12.00
No. 37 Saxon "6" Spring Bumper, black japan finish . . . . .	10.00
No. 38 Saxon "6" Spring Bumper, nickel plate finish . . . . .	12.00

Spring Bumpers are furnished, unless otherwise specified, with clamps suitable for frames up to 1 $\frac{3}{4}$ -in. in width. Special clamps will be furnished, when requested, for frames up to 2 $\frac{1}{8}$ -in. in width.

## HALLADAY "SIMPLEX" BUMPER



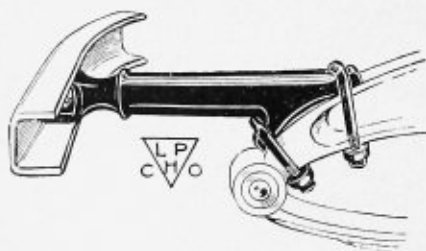
The Halladay Simplex is, as its name implies, a bumper of simplified construction but is of the highest quality of material and workmanship.

The stirrup clip attachment is simple and easy to apply yet perfectly rigid and reliable.

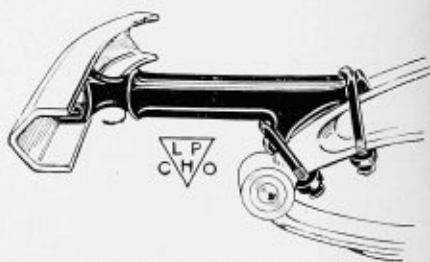
The plunger mechanism is entirely enclosed with a long bearing on the plunger rod.

The springs are finest quality Vanadium steel secured in such manner that they cannot loosen or rattle.

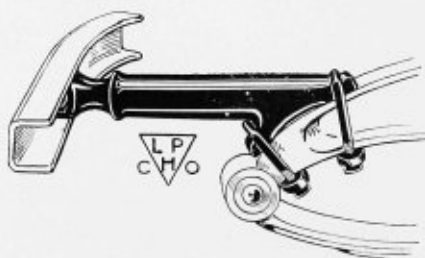
The attachment between the bar and plunger head is by means of a single invisible bolt positively locked against loosening and the head is so designed that in case of a blow there is no strain on the bolt whatever.



**Heavy Channel Bar**



**Diamond Channel Bar**



**Light Channel Bar**



## HALLADAY "SIMPLEX" BUMPER

The Simplex Bumper is furnished with light and heavy weight Channel Bars and our regular Diamond Channel Bar.

Fittings are hard baked black japan and bars are furnished in black japan, polished brass or buffed nickel.

### PRICES

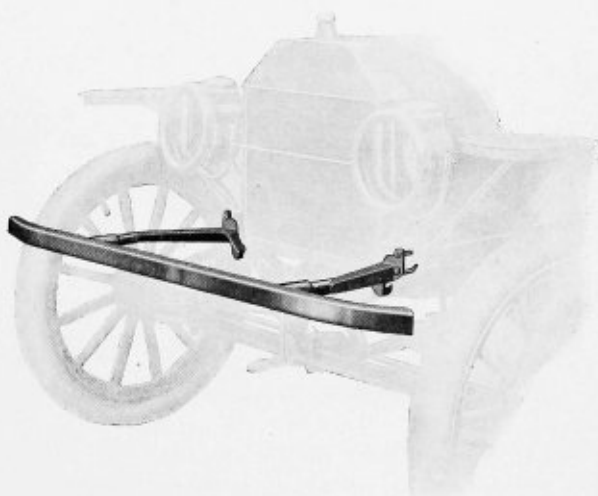
No. 13	Simplex 2-in.x1 $\frac{3}{8}$ -in. bar, black japan finish . . . . .	\$ 8.25
No. 14	Simplex 2-in.x1 $\frac{3}{8}$ -in. bar, polished brass finish . . . . .	9.00
No. 15	Simplex 2-in.x1 $\frac{3}{8}$ -in. bar, nickel plate finish . . . . .	9.00
No. 16	Simplex 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, black japan finish . . . . .	7.50
No. 17	Simplex 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, polished brass finish . . . . .	8.00
No. 18	Simplex 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, nickel plate finish . . . . .	8.00
No. 19-D	Simplex 2-in.x1 $\frac{3}{4}$ -in. bar, black japan finish . . . . .	9.00
No. 20-D	Simplex 2-in.x1 $\frac{3}{4}$ -in. bar, polished brass finish . . . . .	10.00
No. 21-D	Simplex 2-in.x1 $\frac{3}{4}$ -in. bar, nickel plate finish . . . . .	10.00

**"D" Following number designates Diamond Channel Bar.**

Simplex bumpers are furnished, unless otherwise specified, with clamps suitable for frames up to 1 $\frac{3}{4}$  inches in width. Special clamps will be furnished, when requested, for frames up to 2 $\frac{1}{8}$  inches in width.

## HALLADAY SPECIAL BUMPER FOR FORD CARS

Ford Bumpers clamp on to the front of the Ford frame without any machining. The fittings are heavy and make a very neat appearance on the car.



### PRICES

No. 22	Ford 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, black japan finish . . . . .	\$ 7.50
No. 23	Ford 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, polished brass finish . . . . .	8.00
No. 24	Ford 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, nickel plate finish . . . . .	8.00

## HALLADAY BUMPERS

### For Cars of Special Construction

### HALLADAY SPECIAL BUMPER FOR CADILLAC



This Bumper is made especially for the Cadillac 1915 and 1916 cars. The fittings are very neat in appearance, are quickly attached, and will stand a most severe strain. We give option of **Channel Bar** in two weights or **Diamond Channel Bar**.

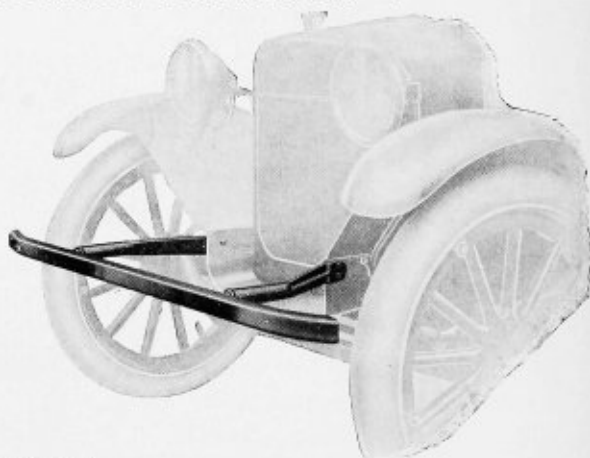
#### PRICES

No. 39	Cadillac Special 2-in.x1 $\frac{3}{8}$ -in. bar, black japan finish . . . . .	\$ 8.25
No. 40	Cadillac Special 2-in.x1 $\frac{3}{8}$ -in. bar, nickel plate finish . . . . .	9.00
No. 41	Cadillac Special 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, black japan finish . . . . .	7.50
No. 42	Cadillac Special 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, nickel plate finish . . . . .	8.00
No. 43-D	Cadillac Special 2-in.x1 $\frac{3}{4}$ -in. bar, black japan finish . . . . .	9.00
No. 44-D	Cadillac Special 2-in.x1 $\frac{3}{4}$ -in. bar, nickel plate finish . . . . .	10.00

"D" following number designates Diamond Channel Bar.

### HALLADAY SPECIAL BUMPER FOR SAXON "6"

This Bumper is made especially for the Saxon "6" car. The fittings are extra heavy and add greatly to the appearance of the car. They can be attached without any machining in a very few minutes.



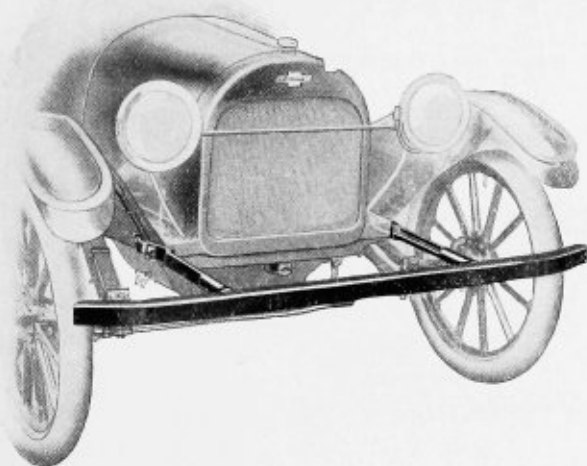
#### PRICES

No. 25	Saxon "6" 2-in.x1 $\frac{3}{8}$ -in. bar, black japan finish . . . . .	\$ 8.25
No. 26	Saxon "6" 2-in.x1 $\frac{3}{8}$ -in. bar, nickel plate finish . . . . .	9.00
No. 27	Saxon "6" 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, black japan finish . . . . .	8.00
No. 28	Saxon "6" 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, nickel plate finish . . . . .	8.50
No. 29-D	Saxon "6" 2-in.x1 $\frac{3}{4}$ -in. bar, black japan finish . . . . .	9.00
No. 30-D	Saxon "6" 2-in.x1 $\frac{3}{4}$ -in. bar, nickel plate finish . . . . .	10.00

"D" following number designates Diamond Channel Bar.

We also furnish Spring Bar Bumpers for Saxon car. For Spring Bar Bumpers, see page ten.

## HALLADAY SPECIAL BUMPER FOR CHEVROLET 490



This Bumper is designed especially for the Chevrolet 490 car and will fit no other. The fittings of this Bumper attach rigidly to the frame of the car, all shocks being taken up by a heavy spring in the fitting. They can be attached to the car in a few minutes without any machining, and add greatly to the appearance of the car. We give option of **Channel Bar** in two weights or **Diamond Channel Bar**.

### PRICES

No. 45	Chevrolet Special 2-in.x1 $\frac{3}{8}$ -in. bar, black japan finish . . . . .	\$ 8.25
No. 46	Chevrolet Special 2-in.x1 $\frac{3}{8}$ -in. bar, nickel plate finish . . . . .	9.00
No. 47	Chevrolet Special 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, black japan finish . . . . .	7.50
No. 48	Chevrolet Special 1 $\frac{3}{4}$ -in.x1 $\frac{3}{16}$ -in. bar, nickel plate finish . . . . .	8.00
No. 49-D	Chevrolet Special 2-in.x1 $\frac{3}{4}$ -in. bar, black japan finish . . . . .	9.00
No. 50-D	Chevrolet Special 2-in.x1 $\frac{3}{4}$ -in. bar, nickel plate finish . . . . .	10.00

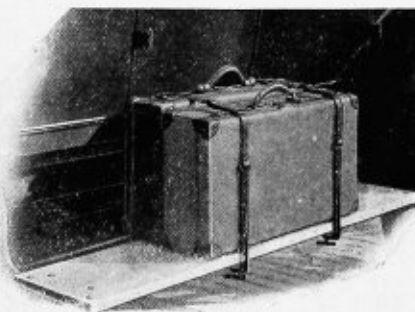
"D" following number designates **Diamond Channel Bar**.

## HALLADAY SUIT CASE OR PACKAGE CARRIER



Every owner of an automobile has, not once but many times, felt the need of an efficient and convenient means of attaching a suit case or similar package to the car.

This suit case carrier meets every possible requirement.



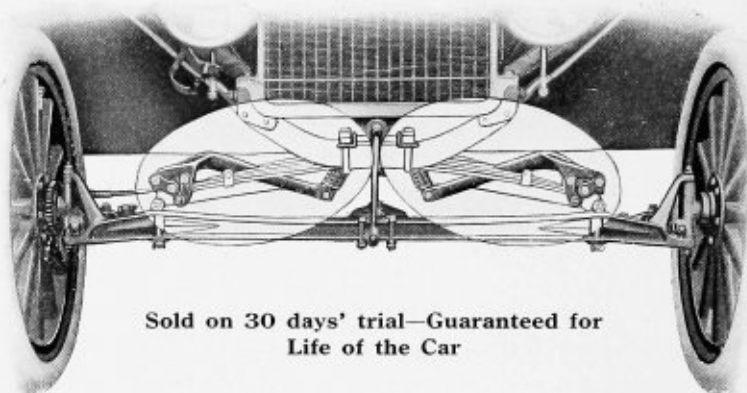
When not in use it can be folded up in compact form for carrying in any convenient place.

It is quickly and easily attached to or removed from the running board without disfigurement of the car. It is adjustable to one or two suit cases of any width and is furnished complete with heavy straps.

Outfit includes two clamps and slides, each provided with heavy leather straps. Finish, black japan. Price, per set . . . . . \$3.00

## HALLADAY FLEXLEVERS

A TOTALLY DIFFERENT SHOCK ABSORBER FOR FORD CARS



Flexlevers are, as their name indicates, a system of flexible spring controlled levers taking the place of the shackles in both the front and rear springs of a Ford car. They work equally well to all springs and eliminate practically all vibration and the disagreeable rebound.

They save and prolong the life of the car and the tires, reducing tire expense from 25 per cent to 33 $\frac{1}{3}$  per cent.

## SIDE SWAY ELIMINATED

An exclusive feature of the Flexlever, is the elimination of the side sway, thereby materially improving the riding and steering qualities of the car.

There are no wearing parts to get out of order, no caps to lose or rattle and no lubrication is necessary.

## HALLADAY FLEXLEVERS

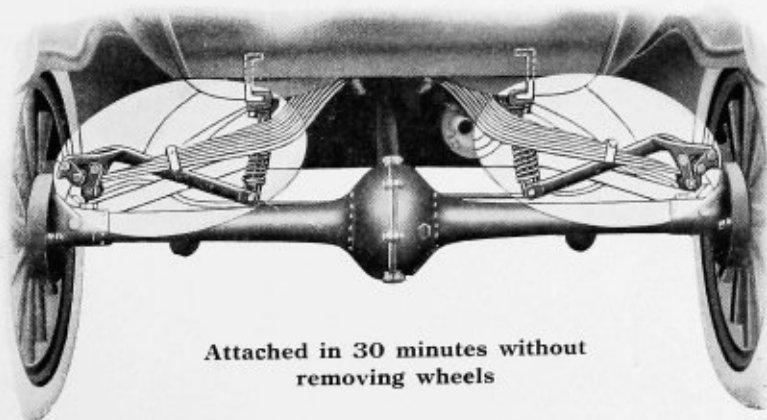
THE ONLY SHOCK ABSORBER THAT ELIMINATES SIDE SWAY

GIVE THE UTMOST DEGREE OF COMFORT  
IN A FORD CAR

FLEXLEVERS must not be confused with any other type of shock absorber as they impart to the car an entirely different action and degree of comfort attainable in any other form of shock absorber, allowing us to guarantee the purchaser of a set of Flexlevers the easiest riding Ford car it is possible to produce.

FLEXLEVERS are fully guaranteed against wear or defects of any nature for the life of the car, and we at any time replace free of charge any broken parts including springs.

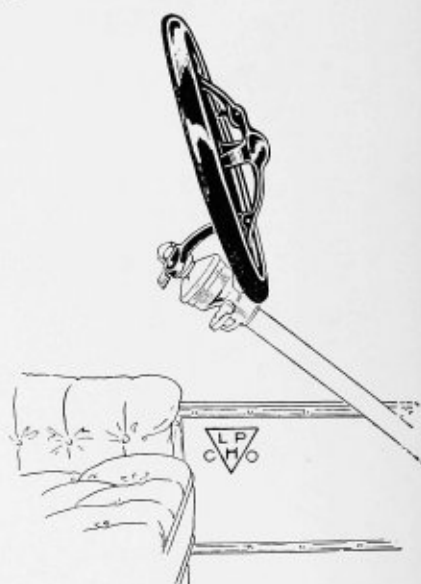
Sold subject to 30-day trial and a money-back guarantee if not strictly as represented and perfectly satisfactory.



Attached in 30 minutes without  
removing wheels

Prices, per pair, front or rear . . . . .	\$ 6.00
Set of four . . . . .	10.00

## HALLADAY TILTING STEERING WHEEL FOR FORD CARS



The Tilting Steering wheel is a great convenience on the Ford car, giving ample room to get in and out of the seat without disturbing the occupant of the opposite seat. It is instantly applied and automatically locks when closed.

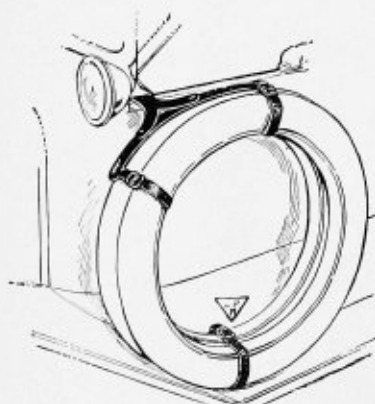
The spider is provided with a four-point support which prevents all looseness and rattle. Finely finished in hard baked black japan and can be instantly attached by simply removing the nut on the end of the steering column. 15-in. size will fit any 15-in. standard Ford rim.

### PRICES

15-inch spider only . . . . .	\$3.00	17-inch complete with rim . . . . .	\$5.00
15-inch complete with rim . . . . .	4.00	Corrugated Rim, either size, extra . . . . .	1.00

## HALLADAY TIRE HOLDER FOR 1915-1916 FORD CARS

### NEAT, ATTRACTIVE, STRONG AND DURABLE



This tire holder will hold perfectly and permanently one or two tires and is sufficiently strong for either demountable rims or wheels. They can be attached by anyone in ten minutes.

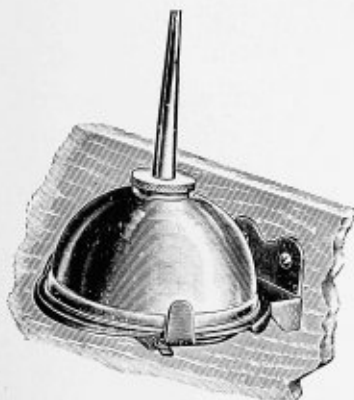
Price, complete with straps . . . . .	\$2.00
Lock and chain, extra . . . . .	.80

For Side of 1915 and 1916 Models



## OIL CAN HOLDERS

### No. 2 RELIABLE AUTOMATIC



These holders are solidly and durably made of pressed steel, copper coated. The No. 2 "Reliable" will fit all standard makes of  $3\frac{3}{8}$ -in. oil cans and can be immediately secured to the dash or any convenient part of the car by means of two screws. Accidental loosening of the can is positively prevented but it can be instantly lifted out when needed.

For  $3\frac{3}{8}$ -in. cans only, price each . . . . . \$ .20

## GASOLINE STRAINER AND WATER TRAP

The strainer is designed to be placed on the gasoline at any convenient point. It forms a perfect tap for water and any substances which should not get to the carburetor. It can be quickly and easily cleaned and is provided with a drain cock. All connections tapped with standard  $\frac{1}{8}$ -inch pipe threads.



Price, \$ .80

## BOOTH AUTOMATIC JACK

No better jack than the Booth Automatic can be made. It is constructed for the hardest service of the best quality of malleable iron throughout, with no complicated parts to get out of order or loose parts to lose. It is automatic in action and can be instantly lifted to any desired height and returned to lower position automatically. Built with an extra large, flat base so that they may be used on the ground, or any soft surface.

Made in two sizes, japan finish.

No. 1 One Ton Jack; height, closed,  $9\frac{1}{2}$ -in., open 14-in.

Price . . . . . \$2.50

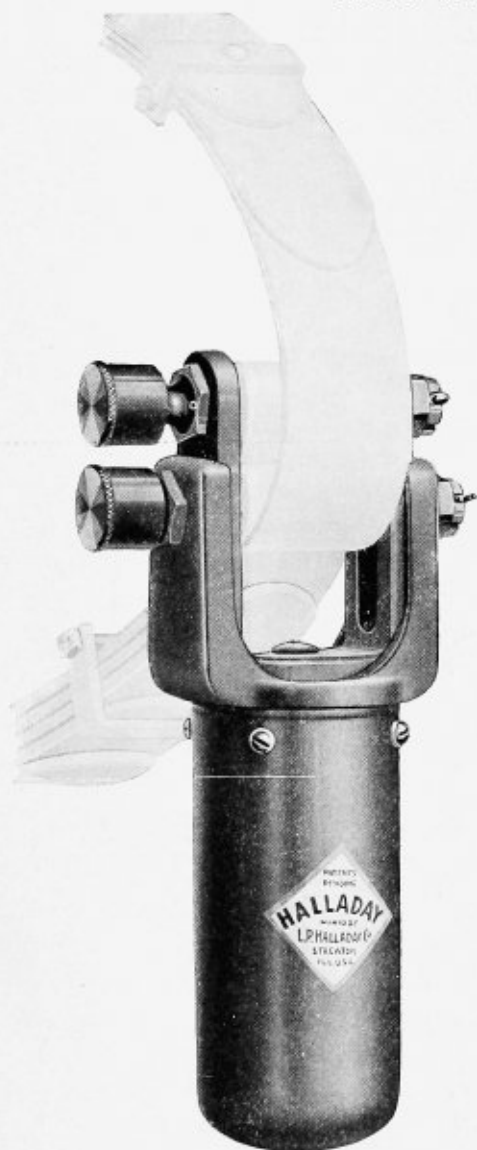
No. 2 3,000-pound Jack; height, closed, 11-in., open 17-in.

Price . . . . . \$2.75



Made of Malleable Iron

## HALLADAY FRICTIONLESS TYPE 4 SHOCK ABSORBERS



A remarkably low priced shock absorber sold strictly on its merits, with an absolute money-back guarantee of satisfaction. No better shock absorber than the HALLADAY Type 4 can be built at any price.

Friction and wear is reduced to the minimum by the long guideways with a bearing surface of seven square inches, which take the place of the usual small bushings on the plunger rod.

The guideways and the spring bolts are lubricated by means of compression grease cups on the ends of the bolt. The bolt diameters are  $\frac{7}{16}$ -in.,  $\frac{1}{2}$ -in., and  $\frac{9}{16}$ -in., as ordered and a special brass bushing is furnished for  $\frac{5}{8}$ -in. bolts.

These absorbers are made for three-quarter and full elliptic springs only.

They can be easily attached in fifteen to twenty minutes without special tools and in any way altering any part of the car.

The spring post is provided with an adjusting screw by which the spring tension can be adjusted to meet a slight variation in the weight of car. In ordering, however, the exact weight of car (as near as possible) should be

given and suitable springs will be furnished. It is also necessary to state the width of the springs and the diameter of the spring bolt. Being low in price these Absorbers meet a ready sale and their quality insures satisfied customers and repeat orders.

Price, per pair as illustrated . . . . . **\$9.00**

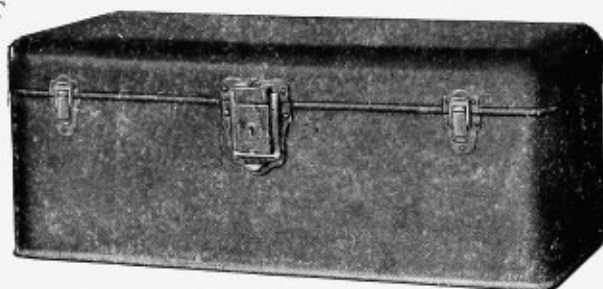
## STANDARD TOOL AND BATTERY BOXES

THE LARGEST AND BEST ASSORTMENT  
OF BOXES ON THE MARKET

SERVICE

QUALITY

PRICE



T 18

### STOCK SIZES

INSIDE MEASUREMENTS INCLUDING LID

STYLE	LENGTH INCHES	WIDTH INCHES	HEIGHT INCHES	PRICE LIST
A-1	12	8	6	\$ 4.10
A-2	12	8	8	4.10
A-3	12	8	10 <sup>3</sup> / <sub>4</sub>	4.25
B-1	14	8	6	4.20
B-2	14	8	9 <sup>1</sup> / <sub>2</sub>	4.35
B-3	14	8	10 <sup>3</sup> / <sub>4</sub>	4.50
B-4	16	8	8	4.35
B-5	16	8	9 <sup>1</sup> / <sub>2</sub>	4.50
B-6	16	8	10 <sup>3</sup> / <sub>4</sub>	4.60
FORD 186	18	8	6	4.50
FORD 18	18	8	6 <sup>3</sup> / <sub>4</sub>	4.50
SPECIAL FORD 18	18	8	6 <sup>3</sup> / <sub>4</sub>	3.75
				4.60
T-7	18	8	8	
T-8	18	8	9 <sup>1</sup> / <sub>2</sub>	4.65
T-9	18	8	10 <sup>3</sup> / <sub>4</sub>	4.85
T-10	20	9	8	5.00
T-11	20	9	9	5.15
T-12	20	9	10 <sup>3</sup> / <sub>4</sub>	5.35
FORD 220	22	9	6 <sup>3</sup> / <sub>4</sub>	4.85
FORD 226	22	9	6	5.15
FORD 22	22	9	6 <sup>3</sup> / <sub>4</sub>	5.15
SPECIAL FORD 22	22	9	6 <sup>3</sup> / <sub>4</sub>	4.00
T-13	22	9	8	5.50
T-14	22	9	9	5.65
T-15	22	9	10 <sup>3</sup> / <sub>4</sub>	5.85
T-16	24	10	8	6.35
T-17	24	10	10	6.35
T-18	24	10	12	6.85



F 22



F 18

## THE ELECTRIC GRIP WARMER

KEEPS THE HANDS WARM



The Electric Grip Warmer consists of two electrically heated pads, which are wound around the steering wheel, making a continuous heating surface for both hands. The pads are covered with waterproof Chase leather, and makes an attractive appearance on the wheel.

Furnished complete in any voltage with on and off switch and all necessary wire.

Made in two voltages from 6 to 8 and 12 to 18. Will operate from Ford Magneto.

Uses less current than one headlight.

---

**GUARANTEE:**—It is impossible to burn out the heating element with current from your battery, generator or magneto. Electric Grip Warmers are guaranteed not to burn out for five (5) years, if used on proper voltage. If defective will be replaced free of charge.

**Price . . . . . \$4.50 each**



No. 56

### Ornamental Hub Cap for Ford Car

This Hub Cap of ornamental pattern is very handsome, made of heavy brass and nicely finished.

Price, Polished Brass .....75c

Price, Nickel Plated .....85c



### License Clamp

A clever device for holding front license number plate.

This article is designed to be attached to the rod which runs between the headlight lamp brackets on many makes of cars.

Made of steel, black japanned.

Price, per pair .....25c



### No. 55 Radiator Cap for Ford Cars

We show here a new type of Ford Radiator Cap which is very popular with Ford owners. The cap is made of extra heavy metal with a black rubberized finish which lends a pleasing appearance to radiators of either brass or nickel. This cap looks as nice as the caps on any of the higher priced cars.

Price 25c



### No. 54 Ford Radiator Cap

Furnished in polished brass or nickel plated. Will lend a distinguished appearance to your car. It is much easier to take off and put on than the regular radiator cap with which your car is equipped.

Made heavy and substantial and well finished.

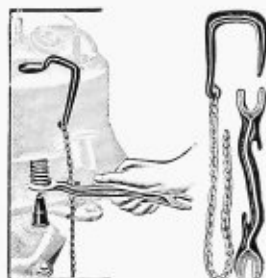
Price 40c



### Radiator Thermometer

Every car should have one of these Radiator Thermometers. It enables the driver to ascertain the temperature of the water in the radiator, thereby preventing overheating or freezing. Polished Brass, Nickel Plated or Black. This Thermometer will fit into the radiator cap of any make of car.

Price.....\$1.50



### Valve Lifter

A most practical device for compressing valve springs so that the valve may be removed. A tremendous leverage can be obtained when properly attached as can be seen by accompanying illustration. All parts made of best quality material. White Nickle Finish

Price, per set.....50c



### Valve Grinder for Ford Engine

This is the simplest device on the market for grinding Ford Valves. Made of steel, nickle plated with mahogany finish wood handle. Price ..35c



2713 2714

### No. 2713 Spindle Body Bushing

Pair.....20c

### No. 2714 Spindle Arm Bushing

Pair.....15c



### Valve Spring for Ford Engine

Made of best quality spring wire properly oil tempered.

Price, per 100,..... \$3.00



### Bolts for Ford Cars

To replace the regular Ford bolts which frequently become lost or broken. Made of best quality steel, carefully hardened.

No. 2710, Spindle Bolt, each.....40c

No. 2718, Spindle Connecting Rod Bolt .....10c



### No. 312 Ford Cut-out

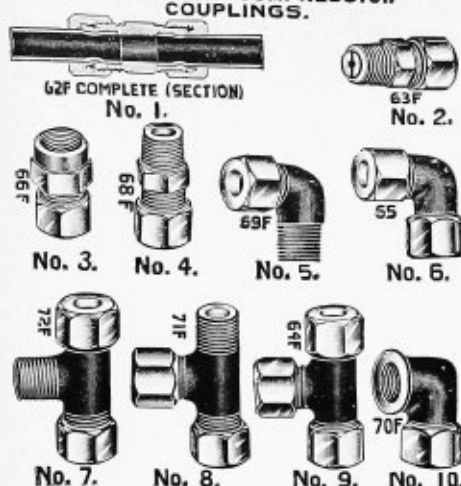
This improved high grade cut-out for the Ford Car will fill all requirements. The valve is made entirely of malleable iron and finished in a high class manner in black rubber. No pulley is required as the connection between the pedal and the cut-out is a direct one. Easy to attach; made extra heavy and well constructed throughout. The pedal is large and is also finished in the same manner as the valve.

Put up one in a box

Price for complete outfit.....\$1.00



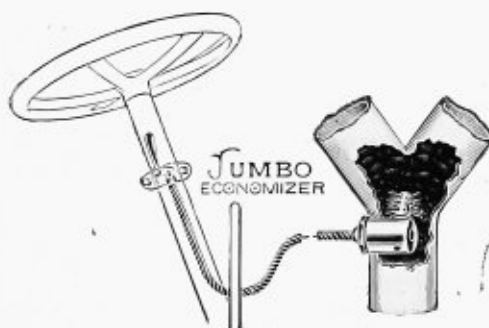
**SOLDERLESS COMPRESSION  
COUPLINGS.**



**Solderless Couplings**

High-grade workmanship. Put up in standard packages. 25 in a package.

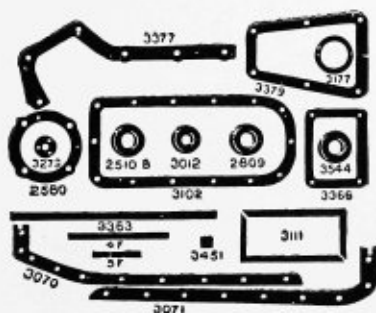
	3-16"	1/4"	5-16"	3/8"
No. 1 —	\$.11	\$.13	\$.14	\$.16
No. 2 —	.14	.15	.16	.25
No. 3 —	.09	.10	.11	.16
No. 4 —	.08	.09	.10	.13
No. 5 —	.08	.09	.11	.15
No. 6 —	.12	.14	.16	.18
No. 7 —	.14	.14	.15	.21
No. 8 —	.14	.14	.15	.21
No. 9 —	.15	.18	.20	.22
No. 10 —	.09	.10	.11	.16



**Jumbo Gasoline Economizer**

This device will increase your power and save twenty per cent of your gasoline. The mixer is inserted into the manifold, introducing an auxiliary supply of air. The air supply is regulated from the steering post. Entirely nickel plated and polished, with full directions for attaching. Can be put on any car in a few minutes. Especially useful on a Ford.

Price, \$2.50



**Felt Washers and Gaskets for Ford Cars**

Made of the very best quality wool felt in the proper shapes and sizes for use on Ford Cars. Furnished singly or in sets.

Price per set of 23 pieces put up in substantial box.....60c



Price, \$1.00

### No. 47 Automatic Air Chuck

This air chuck has proven to be the ideal connection for the end of storage tank hose line. It fills the long-felt demand for an automatic shut-off coupling. It will pay for itself quickly in time and air saved.

To operate attach the air chuck to the hose line and apply to tire. The plunger will then open and permit the air to flow freely. When removed, the air chuck automatically closes, preventing the air from escaping and eliminates the necessity of running back and forth to close a valve. All parts interchangeable and easily replaced.



### No. 44 Perfecto Shut-off Coupling

This connection is to be attached to the end of storage tank hose. It is so arranged that the air supply can be shut off at the tire, thereby saving time and air. Highly nickel plated.

Price 50c



### No. 45 Pump Connection

The standard screw connection for air pumps. Made entirely of brass. A good serviceable connection with fibre washer.

Price, 15c



### No. 46 Hose Connection

A heavy substantial screw connection for air pumps. Made with fibre washer which can not be lost or blown out. Washer can be replaced when worn out. This connection will last forever, all parts being made of heavy brass.

Price, 20c



### No. 51

Same as Number 45 with bumper pin to open plunger in tire valve

Price, 15c



### No. 52 Hose Connection

A perfect slip-on connection that stays on. This connection is designed so that when it is applied to the tire, a quarter turn locks it on the threads of the tire valve and it cannot come off until released. Made extra heavy, of brass, for hard service.

Price 30c

Pure Rubber Gum Washers to fit Nos. 44-47-52

Note the new shape  
Price, 5c each.



**No. 21 Combination Hub Cap, Spark Plug and Cylinder Bolt Wrench for Ford Cars**



This wrench is well known and in big demand. It is made of nicely japanned malleable iron and is very strong. Packed one in a box.

Price each, 31c

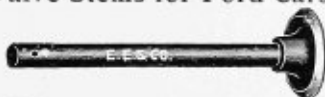
**Fan Belt Guide for Ford Cars**



Holds the fan belt in place and prevents it from slipping off.

Price 25c

**Valve Stems for Ford Cars**



A good, heavy Valve made of high quality cold rolled steel and welded head. Stem is drilled for pin and ready for use.

Price 35c

**DeLuxe Running Boards for Ford Cars**



These handsome boards are in considerable demand to replace the running boards furnished on the Ford Car. Made of Hard Wood and covered with brown linoleum or pyramid aluminum.

These boards not only add to the appearance of the Ford Car, but give considerable better service.

Linoleum covered, per pair .....\$5.00  
Pyramid Aluminum covered per pair.... 6.00

**Ball Races and Retainers for Ford cars**



These Ball Races and Retainers are made of highest quality hardened steel and are in big demand for replacements. Packed 25 in container.

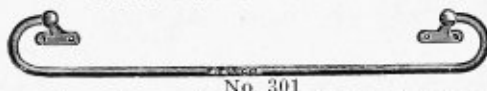
Ford No. 2804. Outer Ball Race, (small) each .....10c  
Ford No. 2805. Inner Ball Race, (large) each .....15c  
Ford No. 2806. Outer Ball Retainer, (small) each ..... 3c  
Ford No. 2807. Inner Ball Retainer (large) each ..... 3c

**Stationary and Adjusting Cones for Ford Cars**



No. 2701, Stationary Cone.....20  
No. 2705, Adjusting Cone, Right..... 15  
No. 2706, Adjusting Cone, Left..... 15

**Robe Rail for Ford Cars**



No. 301

A neat, practical Robe Rail for Ford cars. Length 29 inches.

No. 301, Black Rubber finish, solid.....50c  
302, Nickel Plated Rail, black ends....60c  
303, 5/8" Hollow Rail, all black.....75c  
304, 5/8" Hollow Rail, Nickel Plated...1.00

**Hub Cap Wrench for Ford Cars**



This Wrench is made of pressed steel and fits the Ford Hub Cap as well as other important bolts and nuts. It is very useful.

Price 15c

### Anti-Rattling Brake Rod Supports for Ford Cars



This device is well known to the trade being used to support the brake rod on the Ford car and eliminate the rattle; made of malleable iron, extra heavy weight; black japanned; put up two pieces to a set in individual cartons.

Price per set, 50c

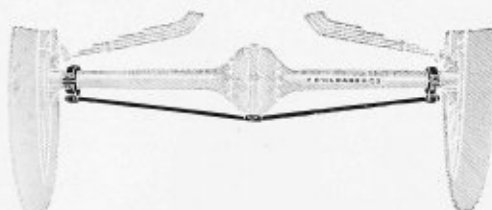
### Anti-Rattling Ball Sockets for Fords



These Anti-Rattling Ball Sockets are made of malleable iron, nicely japanned, and put up in a substantial manner, one in a box.

No. 1 for Steering Rod .....each 25c  
No. 3 for Radius Rod .....each 40c

### Rear Axle Truss for Ford Cars



An absolute necessity on every Ford car; prevents loose rivets, sagging of axle and keeps the gears in perfect mesh.

The sleeves are placed on the ends of the axle over the rivets, to prevent them from slipping when the rod is drawn up. The rod is fastened to the sleeves and small casting is placed between the rod and differential casing to hold the rod in place.

All parts made of extra heavy malleable iron and steel, black enamelled.

Price per complete set, \$1.00

### Adjustable Wheel Puller for Fords

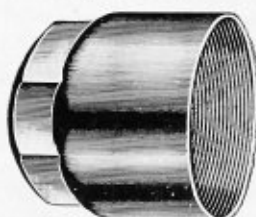


We show here an Adjustable type of Ford Wheel-puller which is in considerable demand. This wheel puller can be used in very many places where the solid wheel puller is not practical.

This wheel puller is made of malleable iron and is of very heavy construction, has a large steel set screw and is altogether a very high-grade article.

Price 50c

### Hub Cap for Ford Cars



Made of heavy gauge brass. Polished brass or nickel plated.

Price 25c

### Wheel Puller for Ford Cars



An ingenious device for removing wheels from Ford cars. To operate, remove the hub cap from the wheel, screw the wheel-puller tight onto the hub, then turn the set screw on top of the wheel-puller until the wheel comes off. Nicely finished.

Price 35c



**Oil Gauge for Ford Cars**  
No. 40

A very useful device to indicate the height of the oil in the crank case.

Heavy glass which can not be broken,  $\frac{3}{8}$ " diameter;

Price 30c

**Oil Gauge for Ford Cars**  
No. 41

Similar in construction to our No. 40, except that the glass is protected by a brass encasement to prevent its being broken. Nicely finished throughout. Packed in individual cartons.

Price, 35c

No. 42 Oil Gauge for Ford Cars. Same construction as No. 40, but has a large glass  $\frac{1}{2}$ " in diameter.

Price 40c



**No. 44 Oil Gauge for Ford Crank Case**

A substantial and reliable instrument.

Extra heavy, all brass including Pet-Cock

Note the one-piece cast Base

Price .....75c

**No. 43 Dashboard Oil Gauge for Fords**

This Gauge enables the driver to tell the amount of oil in the crank case of the Ford Car without leaving his seat. Can be attached quickly and easily, as we furnish all necessary connections for attaching.

Gauge is fastened to Dash Board and is always in view of driver.

Full directions for attaching with each Gauge.

Price \$1.00



**Wind-shield Ventilator Brackets for Fords**

This device is an absolute necessity on every Ford car. It enables the user to quickly adjust his wind-shield so as to give perfect ventilation. Finished in brass, nickel plated or black. These Brackets can be used on all Ford cars except the 1915 and 1916 models.

Price, per set, brass or nickel finish.....\$ .75

Price, per set, black finish ..... .60

**Fender Braces**



These Braces eliminate the rattle of the fenders on Ford cars.

Can be attached by anyone in a few minutes. The small size is used on the rear fender of runabouts.

The large size on front touring car fenders.

Made of steel and black japanned.

Price, Large .....10c each

Price, Small ..... 5c each

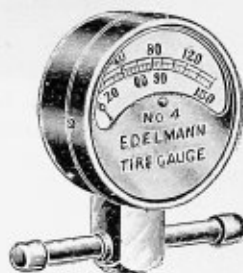
### No. 2 Edelmenn Pump Gauge



Furnished in nickle plated or polished brass; cast,  $1\frac{1}{2}$ " over all,  $\frac{1}{8}$ " I.P. bottom or back connection. Unless otherwise specified we will furnish back connection. 150 lb. gauge as shown in illustration.

Can be furnished in 60 lb., 120 lb. or 200 lb. pressures. Price \$1.00

### No. 4 Edelmenn Power Pump Gauge



This is the right gauge for all makes of power pumps and spark plug pumps.

Price \$1.00



### No. 3-A Pump Gauge and Tire Tester

Has an improvement in the slip-on nut which has a hold-fast feature. To operate, press the rubber slip-on over the tire valve, then give the instrument a quarter turn which engages the threads on the tire valve. The gauge holds fast and keeps the valve pin open. To release turn back to starting point and remove.

Price \$1.50



### 2 inch Low Pressure Dash Gauge

For indicating pressure on gasoline tank where pressure system is used. Standard pressures are 4 lb., 6 lb., 10 lb. When ordering be sure to specify pressure desired, also whether brass or nickle plated finish, bottom or back connection.

Polished Brass \$2.25 Nickle Plated \$2.50



### Compressometer

This instrument is used in testing for leaky valves and determining the compression in each cylinder. Furnished with a complete set of bushings so that compressometer can be used in any size spark plug opening.

Price \$4.00



### 2 1/2 in. Iron case Pressure Gauge

Can be attached to storage tanks to indicate air pressure within the tank.

Japanned iron case with brass ring. Guaranteed accurate. Can be furnished in any pressure. Unless otherwise specified we will furnish a standard 200 lb. gauge with  $\frac{1}{8}$ " bottom connection. Price \$1.25



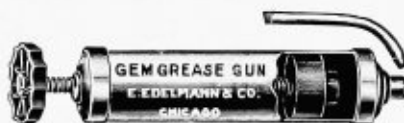
### Jumbo Combination Grease and Oil Gun



Heavy Brass Barrel-- Solid Brass quick-acting shank. Substantial Cork Plunger reinforced with steel. Change from grease to oil by turning small thumb nut. Length of barrel, 11"- diameter  $2\frac{1}{4}$ " capacity, 15 ounces.

Price, \$2.00

### Gem Grease Gun



This Gun is made of heavy brass tubing and is a high grade, substantial article throughout. The barrel is 8 inches long and  $1\frac{3}{4}$  inches in diameter. The grease is expelled by means of a screw type stem, which works very rapidly. Plunger is made of hydraulic pressed cork composition which will last indefinitely.

This Gun is a big value for the money. Capacity, 8 oz. Polished all over. Nicely packed.

Price \$1.00



### No. 3 Grease Gun

Made of extra heavy tubing  $1\frac{1}{2}$ " in diameter by 9 inches long. End of Gun is threaded to fit the tripped opening in Ford differential. Will discharge the lightest oil or heaviest grease. Finished in brushed brass. Capacity 6 ounces.

Price 50 cents.



### The Giant Grease Gun

We show here a real Giant in a Grease Gun, made up expressly to meet a demand by Garage Men all over the country for a Large Capacity Gun which will fill a transmission case with one filling of the gun.

This Gun is the last word in grease gun construction. The barrel is  $12\frac{1}{2}$ " long and 3" in diameter. All parts are of brass, extra heavy and extra strong. The capacity of the

gun is between  $2\frac{1}{2}$  and 3 pounds of grease. Gun can be easily and quickly filled. The grease is expelled by operating the lever. Each move of the lever discharges 2 ounces of grease.

Shipping weight of the gun complete in box 6 pounds.

Price each ... 7.00

Edelmann Grease Cups



No. 101 Full Size



No. 104 Full Size

Note the Leather Plunger which positively forces all grease downward. Made from Solid Brass Rod.

No. 101 with $\frac{1}{8}$ " I. P. Thread, $\frac{1}{4}$ oz. capacity	
Brass .....	15c
N. P. ....	20c
No. 102 with 5-16 X 32 Thread, $\frac{1}{4}$ oz. capacity	
Brass .....	15c
N. P. ....	20c
No. 103 with $\frac{1}{4}$ " X 32 Thread, $\frac{1}{4}$ oz. capacity	
Brass .....	15c
N. P. ....	20c
No. 104 with $\frac{1}{8}$ " I. P. Thread, $\frac{1}{2}$ oz. capacity	
Brass .....	30c
N. P. ....	35c
No. 110 with $\frac{1}{8}$ " I. P. Thread, 1 oz. capacity	
Brass .....	40c
N. P. ....	45c



		Plain		
	000	00	0	1
Steel	10c	15c	20c	25c
N. P.	15c	20c	25c	30c
Thread	$\frac{1}{8}$ " I.P.	$\frac{1}{8}$ " I.P.	$\frac{1}{8}$ " or $\frac{1}{4}$ " I.P.	$\frac{1}{4}$ " I.P.
		<b>Ratchet</b>		
	000	00	0	1
Steel	15c	20c	25c	30c
N. P.	20c	25c	30c	35c

No. 105 Grease Cup

This is a very high grade grease cup. It is made with a non-rising stem so that the handle can not be broken off. It also has a ratchet construction which prevents the shell from working loose. Capacity  $\frac{3}{4}$  oz.  $\frac{1}{8}$ " I. P. thread.

Polished Brass.....30c      Nickle Plated.....40c



No. 112 Spindle Oil Cup

$\frac{1}{8}$ " Iron Pipe Thread

Brass.....10c      Nickle Plated.....15c

This cup will fit the Ford car, also the Maxwell and many other cars.

No. 113 Self Closing Spring Oiler      Brass..15c      Nickle Plated..20c





### Hose Bands

To fit small pump hose. Made of brass in  $\frac{3}{8}$ ", 7-16" and  $\frac{1}{2}$ " sizes.  
Price, 5c



### Burner Cleaner

For use in cleaning gas burners. High grade article. Carefully made.

Price, 10c



No. 26

### Spark Plug Bushing

$\frac{1}{2}$ " Metric to  $\frac{1}{2}$ " Iron Pipe .....10c  
 $\frac{1}{2}$ " Metric to  $\frac{7}{8}$ " X 18" .....10c



No. 28

No. 28— $\frac{1}{8}$ " I.P. Brass Plug, 5c

No. 29— $\frac{1}{4}$ " I.P. Brass Plug, 5c



No. 27

### Brass Bushing

$\frac{3}{8}$ " I.P. to  $\frac{1}{4}$ " I. P. ....5c



### Presto Gas Tank Key

Punched from flat steel. Plain finish.

Price, per gross ..... \$3.00



### Combination Gas Tank Key and Bottle Opener

Highly polished and nickle plated. A strong, serviceable key of cast steel.

Price, 5c



### Ball Joints

We carry in stock the following sizes:

$\frac{1}{4}$ -20.....	10c
$\frac{1}{4}$ -24.....	10c
$\frac{1}{4}$ -28.....	10c
"Ford" 12-32.....	10c



### Gas Tank Reducing Valve

This device eliminates running back and forth when lighting lamps. Will reduce and regulate the gas pressure, avoiding explosions, broken lenses, etc.

Finished in bright brass.

Price, 75c



### Presto Union, all Brass

Price, 25c

### Edelmann ALL STEEL Screw Drivers

These are very practical and useful tools when used in connection with automobile repairing. Each blade made of high carbon tool steel. Polished nickel plated.

Hardware Merchants will find these Screw Drivers Lively Sellers.



#### Four-in-one Screw Driver

This tool is a combination of the several screw drivers shown below. Each tool fits into the one larger making a neat compact combination. A very popular seller.

Length over all 5 3/4"

Price 60c



#### Three-in-one Screw Driver

Same construction as in the Four-in-One. A combination of Twin and Perfecto Screw Driver.

Length over all, 3 3/4"

Price, 25c



#### Twin Screw Driver

Two Screw Drivers in one. Put up on Display Cards, 25 on a Card.

Twin, 2 in 1..... 10c

#### Perfecto Screw Driver



Perfecto, - 3" over all..... 10c

Very Useful and Practical

#### No. 3 Edelmann Screw Driver



5 1/4" long, solid ..... 25c

A High Grade Tool

## SPRING SHACKLE BOLTS

The enormous demand for lubricating devices for spring shackles has developed the Spring Shackle Lubricating Bolt for automobile and motor truck spring. The bolts listed are the highest grade throughout, being hardened and ground. Diameter given is the exact size; length, from shoulder end of bolt. Complete with castellated nut, grease cup and drilled for cotter pin.



TYPE 10.

$\frac{1}{2}$ x 3 to $3\frac{3}{4}$ inch	50c. each
$\frac{1}{2}$ x 4 to $4\frac{3}{4}$ "	60c. "
$\frac{9}{16}$ x 3 to $3\frac{3}{4}$ "	60c. "
$\frac{9}{16}$ x 4 to $4\frac{3}{4}$ "	70c. "
$\frac{5}{8}$ x 3 to $3\frac{3}{4}$ "	75c. "
$\frac{5}{8}$ x 4 to $4\frac{3}{4}$ "	85c. "



TYPE 12.

Same spring bolt as above but with special Brass Grease Cup. The handle on this Grease Cup is stationary, irrespective of the amount of grease in cup. Handle does not extend out from cup.

$\frac{1}{2}$ x 3 to $3\frac{3}{4}$ inch	75c. each
$\frac{1}{2}$ x 4 to $4\frac{3}{4}$ "	85c. "
$\frac{9}{16}$ x 3 to $3\frac{3}{4}$ "	85c. "
$\frac{9}{16}$ x 4 to $4\frac{3}{4}$ "	1.00 "
$\frac{5}{8}$ x 3 to $3\frac{3}{4}$ "	1.15 "
$\frac{5}{8}$ x 4 to $4\frac{3}{4}$ "	1.25 "

For Nickel Plated Cups 10c. additional.

## DRAIN & SHUT-OFF COCKS



37 E



33 E



20 E

33-E	1/8"	Pet Cock, T Handle,	-	-	-	-	\$ .25
34-E	1/4	" " T Handle,	-	-	-	-	.30
35-E	1/8	" " Lever Handle	-	-	-	-	.35
36-E	1/4	" " " "	-	-	-	-	.40
37-E	1/8	" " T Handle, Spring Seat	-	-	-	-	.35
38-E	1/4	" " T Handle, " "	-	-	-	-	.40
39-E	1/8	" " Lever " , " "	-	-	-	-	.45
40-E	1/4	" " " " , " "	-	-	-	-	.50
20-E	1/8	" " " " , " " L. S.	-	-	-	-	.50
21-E	1/4	" " " " , " " L. S.	-	-	-	-	.60

*All Cocks listed above finished in polished brass.*

## RADIATOR DRAIN COCKS



41 E

41-E	Radiator Drain Cock	1/8"	-	-	-	-	\$ .35
42-E	" " " "	1/4	-	-	-	-	.40

*Lever Handle Spring Seat. Finished in rough brass.*

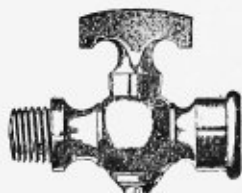
## DOUBLE END COCKS



D. E. Male Cock

1/8"	Double End Male	-	-	-	-	-	\$ .40
1/4	" " " "	-	-	-	-	-	.50
1/8	" " Female	-	-	-	-	-	.50
1/4	" " " "	-	-	-	-	-	.60
1/8	" " Male and Female	-	-	-	-	-	.60

*Finished in Polished Brass*



Male and Female Cock

1/8"	Double End Female	-	-	-	-	-	\$ .50
1/4	" " " "	-	-	-	-	-	.60
1/8	" " Male and Female	-	-	-	-	-	.60

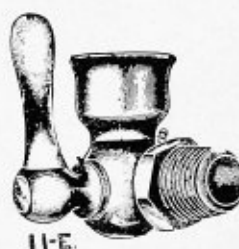
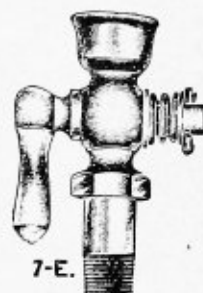
*Finished in Polished Brass*



## PRIMING CUPS

### BRASS PRIMING CUPS

No. 5	E $\frac{1}{8}$ inch	Short Shank	. . . . .	\$ .25
No. 6	E $\frac{1}{4}$ inch	Short Shank	. . . . .	.30
No. 7	E $\frac{1}{8}$ inch	Long Shank	. . . . .	.30
No. 8	E $\frac{1}{4}$ inch	Long Shank	. . . . .	.35
No. 11	E $\frac{1}{8}$ inch	Angle Short Shank	. . . . .	.30
No. 12	E $\frac{1}{4}$ inch	Angle Short Shank	. . . . .	.35
No. 111	E $\frac{1}{8}$ inch	Angle Long Shank	. . . . .	.35
No. 112	E $\frac{1}{4}$ inch	Angle Long Shank	. . . . .	.35



### FIBRE HANDLE PRIMING CUPS

No. 25	E $\frac{1}{8}$ inch	Short Shank	Priming Cups	. . . . .	\$ .40
No. 26	E $\frac{1}{4}$ inch	Short Shank	Priming Cups	. . . . .	.45
No. 27	E $\frac{1}{8}$ inch	Long Shank	Priming Cups	. . . . .	.50
No. 28	E $\frac{1}{4}$ inch	Long Shank	Priming Cups	. . . . .	.60



### FEMALE THREAD PRIMING CUPS

No. 15	E $\frac{1}{8}$ inch	Short Shank	Priming Cups	. . . . .	\$ .50
No. 16	E $\frac{1}{4}$ inch	Short Shank	Priming Cups	. . . . .	.60



*All Priming Cups listed above finished in Polished Brass.*

*Nickel Plated Priming Cups to order only.*

## VICTOR STANDARD GASKETS

*For Intake and Exhaust Pipes, Manifolds, Carburetors, Etc.*



Trade No.	Size Center Hole	Size Bolt Holes	Distance from center to center of bolt holes	Size Gasket over all	List Price per 100
0	$\frac{7}{8}$	$\frac{1}{4}$	$1\frac{13}{16}$	$1\frac{5}{16} \times 2\frac{9}{16}$	\$3.00
1	$1\frac{5}{16}$	$1\frac{1}{32}$	$1\frac{7}{8}$	$1\frac{1}{2} \times 2\frac{1}{2}$	3.00
2	$1\frac{11}{16}$	$\frac{3}{8}$	$2\frac{1}{8}$	$1\frac{9}{16} \times 2\frac{7}{8}$	3.40
3	1	$\frac{5}{16}$	2	$1\frac{3}{8} \times 2\frac{5}{8}$	3.60
4	$1\frac{1}{8}$	$1\frac{13}{32}$	$2\frac{1}{8}$	$1\frac{11}{16} \times 3$	3.60
5	$1\frac{3}{16}$	$1\frac{13}{32}$	$1\frac{7}{8}$	$1\frac{3}{4} \times 2\frac{5}{8}$	3.80
6	$1\frac{1}{4}$	$\frac{3}{8}$	$2\frac{1}{8}$	$1\frac{13}{16} \times 2\frac{13}{16}$	3.80
7	$1\frac{5}{16}$	$\frac{3}{8}$	$2\frac{3}{8}$	$1\frac{7}{8} \times 3\frac{1}{8}$	4.00
8	$1\frac{3}{8}$	$1\frac{13}{32}$	$2\frac{11}{16}$	$2\frac{1}{8} \times 3\frac{1}{2}$	4.20
9	$1\frac{7}{16}$	$1\frac{1}{32}$	$2\frac{3}{8}$	$2\frac{1}{8} \times 3$	4.20
10	$1\frac{1}{2}$	$\frac{7}{16}$	$2\frac{3}{8}$	$2 \times 3\frac{1}{4}$	4.40



Box containing 50 Exhaust Gaskets Assorted, list value, \$4.75 **Price . . . . . \$3.50**

### **GASKET BOARDS** containing assortments listed below.

Board No. 1 measures 15 x 21 inches, has 22 hooks and holds 550 gaskets of the following sizes:

#### **ROUND CLOSED TYPE GASKETS**

25-1 inch I. D.	25-1 $\frac{5}{8}$ inch I. D.	25-2 $\frac{1}{8}$ inch I. D.	25-2 $\frac{5}{8}$ inch I. D.
25-1 $\frac{1}{4}$ inch I. D.	25-1 $\frac{3}{4}$ inch I. D.	25-2 $\frac{1}{4}$ inch I. D.	25-2 $\frac{3}{4}$ inch I. D.
25-1 $\frac{3}{8}$ inch I. D.	25-1 $\frac{7}{8}$ inch I. D.	25-2 $\frac{3}{8}$ inch I. D.	25-2 $\frac{7}{8}$ inch I. D.
25-1 $\frac{1}{2}$ inch I. D.	25-2 inch I. D.	25-2 $\frac{1}{2}$ inch I. D.	25 A.L.A.M. Size
25 Metric Size			

#### **EXHAUST TYPE GASKETS**

25-1 $\frac{1}{8}$ inch C. H.	25-1 $\frac{1}{4}$ inch C. H.	25-1 $\frac{1}{2}$ inch C. H.	25-1 $\frac{3}{4}$ inch C. H.
25-2 inch C. H.			

*List Price of all Gaskets \$9.50.*

*No Extra Charge for Board.*

## ROUND CLOSED TYPE GASKETS

(CONTINUED)

Board No. 2 measures 17 x 26 inches, has 26 hooks and holds 650 gaskets of the following sizes:

25—1 inch I. D.	25—1 $\frac{3}{4}$ inch I. D.	25—2 $\frac{1}{2}$ inch I. D.
25—1 $\frac{1}{8}$ inch I. D.	25—1 $\frac{7}{8}$ inch I. D.	25—2 $\frac{3}{8}$ inch I. D.
25—1 $\frac{1}{4}$ inch I. D.	25—2 inch I. D.	25—2 $\frac{3}{4}$ inch I. D.
25—1 $\frac{3}{8}$ inch I. D.	25—2 $\frac{1}{8}$ inch I. D.	25—2 $\frac{7}{8}$ inch I. D.
25—1 $\frac{1}{2}$ inch I. D.	25—2 $\frac{1}{4}$ inch I. D.	25—3 inch I. D.
25—1 $\frac{5}{8}$ inch I. D.	25—2 $\frac{3}{8}$ inch I. D.	25—3 $\frac{1}{8}$ inch I. D.
	25—Metric Size	

## EXHAUST TYPE GASKETS

25—1 $\frac{1}{8}$ inch C. H.	25—1 $\frac{1}{2}$ inch C. H.	25—2 inch C. H.
25—1 $\frac{1}{4}$ inch C. H.	25—1 $\frac{3}{4}$ inch C. H.	25—2 $\frac{1}{4}$ inch C. H.

List Price of all Gaskets \$11.70. No extra Charge for Board.



## CYLINDER HEAD GASKETS FOR FORD CARS.

Price . . . . . 40 cents each.

## COMPLETE SET VICTOR GASKETS FOR FORD CARS



12 Sets in 1 Box . . . . .	Price 50 cents per Set
25 Sets in 1 Box . . . . .	Price 40 cents per Set



## COMPLETE SETS GASKETS FOR FORD CARS LESS CYLINDER HEAD GASKETS.

12 Sets in 1 Box . . . . .	Price \$1.80 Complete
25 Sets in 1 Box . . . . .	Price 3.50 Complete

*Cylinder head Gaskets furnished for any make car.*

## VICTOR COPPER ASBESTOS GASKETS ROUND GASKETS



CLOSED TYPE



FRENCH TYPE

Size inches inside diam.	Closed type. Size inches outside diam.	Price per 100	Size inches inside diam.	Price per 100	
1"	1 1/4"	\$1.00	1"	1 1/8"	\$1.50
1 1/8	1 3/8	1.25	1 1/8	1 1/4	1.65
1 1/4	1 1/2	1.40	1 1/4	1 3/8	1.70
1 3/8	1 5/8	1.65	1 3/8	1 1/2	2.00
1 1/2	1 3/4	1.70	1 1/2	1 5/8	2.25
1 5/8	1 7/8	1.80	1 5/8	1 3/4	2.45
1 3/4	2	1.80	1 3/4	1 7/8	2.55
1 7/8	2 1/8	1.90	1 7/8	2	2.60
2	2 1/4	2.00	2	2 5/32	2.65
2 1/8	2 3/8	2.30	2 1/8	2 9/32	2.75
2 1/4	2 1/2	2.30	2 1/4	2 13/32	3.20
2 3/8	2 5/8	2.40	2 3/8	2 17/32	3.25
2 1/2	2 3/4	2.50	2 1/2	2 21/32	3.35
2 5/8	2 7/8	2.60	2 5/8	2 25/32	3.75
2 3/4	3	2.75	2 3/4	2 29/32	3.80
2 7/8	3 1/8	3.00	2 7/8	3 1/32	4.00
3	3 1/4	3.10	3	3 3/16	4.10
3 1/8	3 3/8	3.35	3 1/8	3 5/16	4.20
3 1/4	3 1/2	3.75	3 1/4	3 7/16	4.40
3 1/2	3 3/4	4.75	3 1/2	3 11/16	4.65
			3 3/4	3 15/16	5.70
			4	4 3/16	5.90
			4 1/4	4 7/16	7.30

*Prices Intermediate sizes on application.*



### Assortment No. 22

Box contains 200 assorted Gaskets Closed  
Type of the Most popular sizes.

**Price . . . . . \$4.00**

### Assortment No. 24

Box contains 100 assorted Gaskets French  
Type of the Sizes most generally used.

**Price . . . . . \$4.00**

## IDEAL HOSE CLAMPS

### *A Few Superior Points of the Ideal Clamps are:-*

They will not **Buckle** or cut the hose.

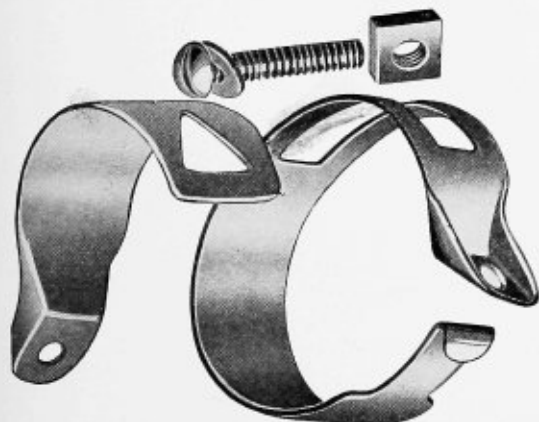
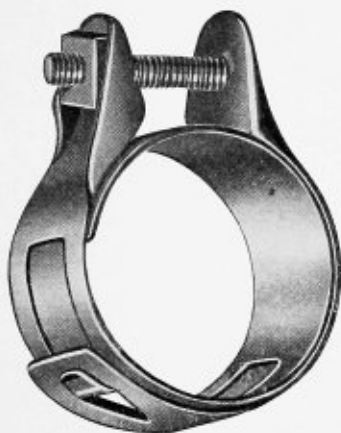
They can be slipped over a pipe, no matter in what position the pipe may be.

They will always form back to the original shape by simply tightening the screw.

By means of the extra notch, the Ideal Hose Clamp can be adjusted to two sizes.

## *The Ideal Hose Clamp*

*The Only Clamp that Closes Perfectly  
Round Over a Hose*



### *Price List of*

### *Water and Steam Clamps*

Size of Hose Outside Diam.	Steel Nickelpl. per 100	Brass Polished per 100
3/4 "	\$ 4.00	\$ 5.20
7/8 "	4.10	5.40
1 "	4.30	5.80
1 1/8 "	4.50	6.00
1 1/4 "	4.70	6.40
1 3/8 "	4.90	6.80
1 1/2 "	5.00	7.20
1 5/8 "	5.20	7.60
1 3/4 "	5.40	8.00
1 7/8 "	5.60	8.40
2 "	5.80	8.80
2 1/8 "	6.00	9.20
2 1/4 "	6.20	9.50
2 3/8 "	6.40	10.00
2 1/2 "	6.60	10.50
2 5/8 "	6.80	11.00
2 3/4 "	7.00	11.50
2 7/8 "	7.20	12.00
3 "	7.50	12.50
3 1/4 "	7.60	12.80
3 1/2 "	7.80	13.00
3 3/4 "	8.00	13.40

### *Number of Clamps in a Box.*

1/2 ".....100	1 1/4 ".....100	2 1/4 "..... 50
3/4 ".....100	1 1/2 ".....100	2 1/2 "..... 50
1 ".....100	1 3/4 ".....100	3 "..... 50
	2 "..... 50	

### **SPECIAL SIZES TO ORDER**

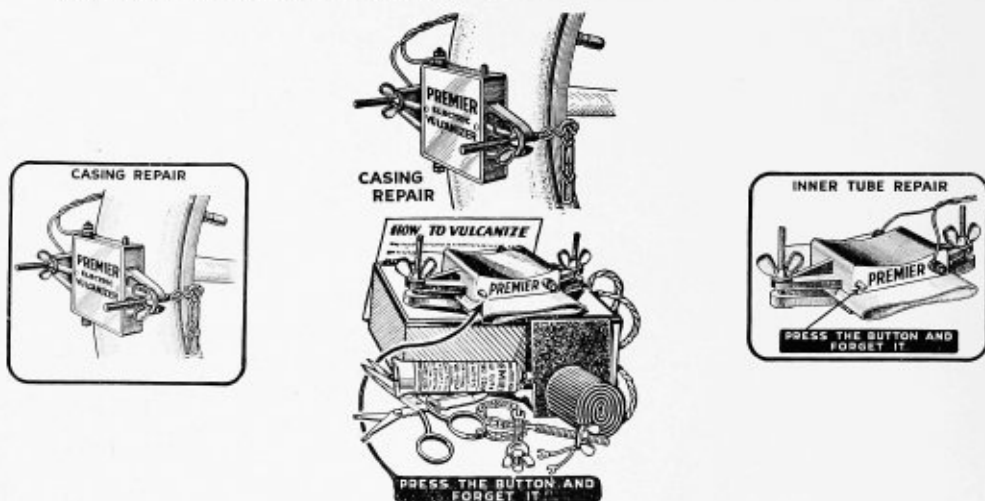
## **SCOTT ONE PIECE HOSE CLAMP**

An excellent Hose Clamp especially adapted for repair work in machine shops. Pliable, readily adapts itself to the shape of the hose.

Very strong. Two complete bands around hose.

Special Ford sizes 2 1/8 " outlet . . . . . **\$3.00 per 100**  
 " " " 2 3/8 " intake . . . . . **3.00 " 100**

## PREMIER AUTOMATIC ELECTRIC VULCANIZER.



The "PREMIER" Automatic Electric Vulcanizer reduces vulcanizing to a simple process. With this vulcanizer you simply make preparations for the repair, stick on the vulcanizer and press the button. This requires about 3 to 5 minutes time and no further attention is necessary, for when the repair is vulcanized the button is automatically released, which cuts off the current and the vulcanizer then cools off.

Operates under all weather conditions. No gasoline to measure, nor open flame to blow out in the wind. It will repair tubes and casings with less trouble than any other vulcanizer and burned or over-cured tubes or casings are an absolute impossibility.

Small and compact, less cumbersome than other portable vulcanizers and as it weighs approximately two pounds it is not a burden to carry in the tool compartment but is always ready to put a patch on an inner-tube that "stays put" and to heal cuts in casings while fresh, which means much toward cutting down tire expense.

The only REAL automatic vulcanizer on the market. It is economical, saves time and eliminates all fire danger.

Furnished to operate off the storage battery on your car or 110 volt lighting circuit. The outfit includes flexible connecting cord, repair gum, cement, "PECO" tire tool, a durable chain, scissors and directions ready for use.

**Price complete . . . . . \$3.50**

*Specify voltage desired.*

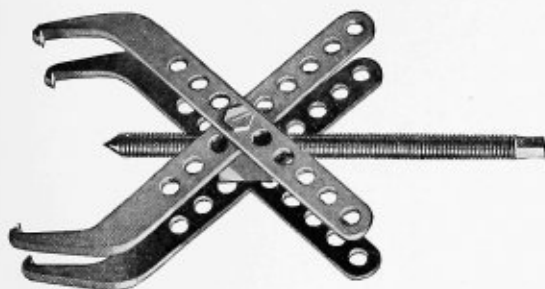
### No. 1 VULCANIZING OUTFIT

Materials for 50 repairs, consisting of Para rubber, Cement, Wax Papers and Emery Cloth.

**Price . . . . . \$1.50**

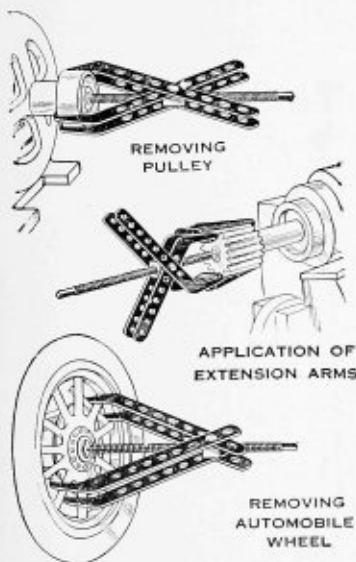


## PREMIER "LITTLE GIANT" GEAR AND WHEEL PULLER.



The "LITTLE GIANT" having four puller-prongs, to steady the draw-screw, prevents slipping and uneven pulls, making it possible to apply the greatest force without injury to the parts to be removed and with the least labor.

It is quickly adjustable up to 13 inches. For gears under 2½ inches diameter a pair of extension arms are supplied—each arm setting into the pair of puller-prongs.



**REMOVING PLAIN WHEEL OR PULLEY:-** The simplest and therefore the most common use in pulling is on a plain wheel, such as a fan pulley on an auto or any other simple form of wheel or pulley. In such cases it is seldom necessary to adjust the puller, as all that is necessary is to see that the puller ends are parallel with screw.

**REMOVING TIMING GEAR, ETC:-** As a garage tool the "LITTLE GIANT" will be found to be the greatest labor saver and money maker of any tool around the place, for it is especially applicable and designed for gear pulling where the space is limited around the gear, such as is always the case in timing and other gears in an automobile which are surrounded by a close fitting gear case.

The "LITTLE GIANT" is made of drop forge steel. It is light and easily handled. They are tested for a 3-ton pull and have withstood a twenty-ton direct draw.

Shipping weight 8 pounds.

Price . . . . . \$10.00  
Extension arms . . . . . 1.00

**NOTE**—Extension arms are only necessary on small gears of 2½ inch diameter or less, and provide a one point pull per arm instead of the regular two point.

Where extensions are not specified they will be shipped without.



## MAGNETIC AUTO TROUBLE LAMP

NO DANGER FROM EXPLOSIONS

SIX CANDLE POWER

SIX VOLTS

CONNECTS TO ANY LAMP SOCKET ON CAR

Sticks anywhere on iron or steel; has electro-magnet in base; holds at any angle; magnet pulls 50 times its weight; light just where you want it; reflector tube protects bulb; small and compact; one inch in diameter; weight but three ounces; operates from 6 volt battery; large light ray angle.

With the "STICKALITE" you can also pick up tools which are accidentally dropped in the engine pan instead of using the cumbersome tools designed especially for this purpose.

**PRICE** . . . . . \$1.00 each

Complete with a 6 Candle Power Electric Lamp, 10 feet of Flexible Cord with Connecting Plug attached which fits into any lamp socket on car.

**IMPORTANT**—When Ordering, Specify Which Style Connecting Plug Desired, Single or Double contact Ediswan, (Push and Turn) or Candelabra, (Screw-thread). Ediswan types are Standard.

# MOTOROPE

FIRST THING NEEDED IN EMERGENCY

The  
Strongest  
Rope



The  
Best  
Fastener

PATENT APPLIED FOR

The original and best tow line. Seventh Season. Same high quality manila hemp furnished with the new instantaneous fastener (patent applied for.) No Knots, No Hooks, No Splices, No Clamps.

- |  |           |        |
|--|-----------|--------|
| No. 1. 25 feet x $\frac{1}{2}$ " diam. | - - - - - | \$1.50 |
| For cars weighing up to 2,000 lbs.     |           |        |
| No. 2. 30 feet x $\frac{3}{4}$ " diam. | - - - - - | \$3.00 |
| For cars of over 2,000 lbs.            |           |        |

The regular first quality MotoRopes (Finest Manila Bolt Rope), as described above, are marked with a red yarn running through one strand.

To meet the demand for a cheaper line, SPECIAL GRADE MotoRopes are now furnished, with the same Fasteners, but made of a lower grade rope. This is a good serviceable rope, but of somewhat lower breaking strength. The No. 1 size is excellent for the Ford and other light cars.

- |  |           |        |
|--|-----------|--------|
| No. 1. Special Grade, 25 ft. x $\frac{1}{2}$ in. diam. | - - - - - | \$1.00 |
| No. 2. Special Grade, 30 ft. x $\frac{3}{4}$ in. diam. | - - - - - | 2.00   |



PATENT APPLIED FOR

## MotoRope Block and Tackle Outfits.

For use on cross-country trips,  
and where help is not available.

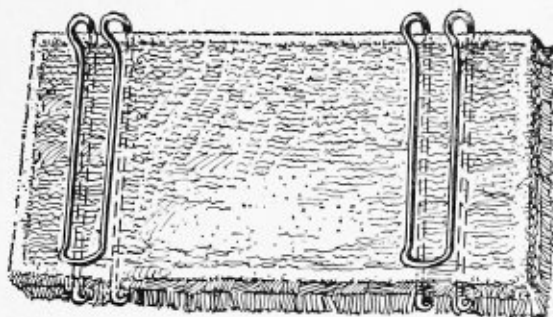
Same quality rope as MotoRope tow lines; roller bearing blocks  
of fine quality.

- |   |       |        |
|---|-------|--------|
| No. 1. 110 feet x $\frac{1}{2}$ diam. rope, single and double blocks; will separate about 35 feet | - - - | \$6.50 |
| No. 1—A. Same, with 60 feet of rope   | - - - | 5.00   |
| For double and triple blocks add \$1.00—For extra rope add 3c. per foot.                          |       |        |
| No. 1—B. 160 feet x $\frac{1}{2}$ ", double and triple blocks                                     | - - - | 9.00   |
| No. 2. 110 feet $\frac{3}{4}$ ", single and double  | - - - | 10.00  |
| For double and triple blocks add \$1.00—For extra rope add 6c. per foot.                          |       |        |
| No. 2—B. 160 feet x $\frac{3}{4}$ " double and triple   | - - - | 14.00  |

Other special sizes made to order. Prices on application.

*MotoRope is Guaranteed to be Strongest and most Elastic Rope it is possible to produce.*

## "SLIDE ON" RUNNING BOARD COCOA MAT



BOTTOM VIEW

Patented March 2, 1915

Made of Best Cocoa Fibre Brush with spring wire clips that permits it to be readily attached but holds it firmly in place.

*It will effectually keep mud and dirt out of your car.*

No. 1	Best quality	\$2.25 per mat
No. 2	Selected grade	1.75 per mat

### TONEAU MATS for Ford Cars

Made of best grade Cocoa Fibre . . . . . \$3.50 each

## ALL STEEL FOLDING CHAIR

FOLDS IN ONE MOTION  
FULL SIZE

Size of Seat  $11\frac{1}{2}$  x 13 inches.  
Seat 15 inches from floor.  
Back 18 inches higher than seat.

**WEIGHT 8 POUNDS EACH.**

Packed six in a carton.

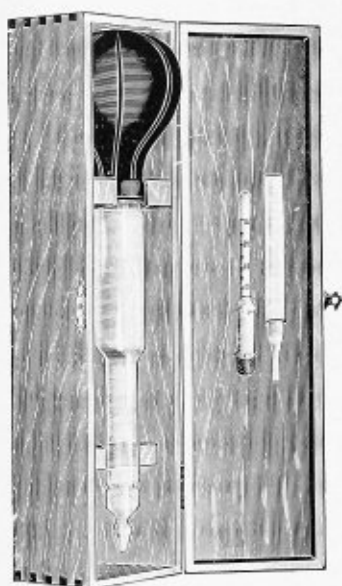


Size when folded  
 $18\frac{1}{2}$  x  $14\frac{3}{4}$  x  $4\frac{3}{4}$  inches.



Cannot fold while in use.  
Will carry safely 500 Pounds.  
Folds in one motion with one hand or can be folded by placing foot on front leg of chair when it is laying on back.  
Positively the most comfortable auxiliary chair.

**Price \$1.50**

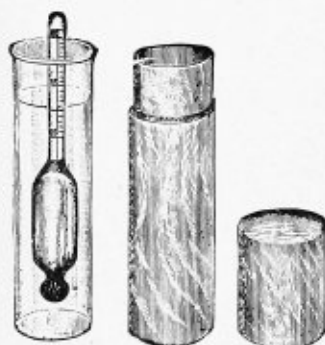


## ACME BATTERY METER.

This Battery meter is positively the highest grade battery meter to be had. It is made according to government specifications.

Length  $14\frac{1}{2}$ " over all. Consists of large, Pure Gum Rubber Bulb, frictionless hydrometer, a glass tube, the upper half of tube being greater in diameter than lower half. The hydrometer cannot stick to tube. Bottom of tube is closed save for outlet. A rubber washer is placed inside bottom of tube to protect hydrometer. Furnished with rubber tubing 4" long with glass nipple on end.

Price . . . . . \$3.00  
Extra Hydrometer . . . . . .75



## GASOLINE HYDROMETERS.

Used in testing gravity of gasoline. Packed in wood box. Consists of gasoline hydrometer, graded Baume Scale 40 degrees to 90 degrees, 1 degree gradation.

Wrapped in flannel bag complete with test jar.

Price . . . . . 25 cents



## ACID HYDROMETERS.

Similar to gasoline hydrometer, graded Baume Scale, 15 degrees to 35 degrees, and 1100 to 1300 degrees specific gravity. Complete as above.

Price . . . . . 25 cents

## BATTERY HYDROMETER SYRINGES.

To insure full capacity it is necessary to test the condition of the storage battery. The best, safest, and only clean method is by the use of a Battery Meter.



### EDELMAN BREAK-NOT HYDROMETER SYRINGE.

A Battery Meter so constructed that it will not break if dropped. Consists of rubber bulb, glass tube, hard rubber tube which screws on glass tube, both pieces completing the cylinder. Only enough glass to show the inside hydrometer. Rubber tip leads from hard rubber tip to acid in battery. Packed in screw top mailing case.

Price . . . . .	75 cents
Extra Acid Hydrometer . . . . .	25 cents



### EDELMAN No. 1 BATTERY METER.

Consists of rubber bulb, glass tube, one end open hydrometer, and rubber tip. Packed in screw top mailing case.

Price . . . . .	75 cents
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### No. 10 BATTERY METER.

High Grade Battery Meter. Length 14 inches. Hydrometer scale 1100 to 1300 specific gravity, 5% gradation at 70 degrees Fahrenheit.

Consists of large bulb, glass tube, frosted ends, open both ends, acid hydrometer (packed in wood box) rubber tube 4 inches long with glass tip. Will reach bottom of any battery.

Price . . . . .	\$1.50
Extra Hydrometer . . . . .	.35

## GASOLINE HYDROMETER WITH THERMOMETER

Length of Hydrometer is 6 inches, Baume Scale 40 degrees to 90 degrees, 1 degree variation with Thermometer. Packed in flannel bag with test jar in a wood box.

Price . . . . . \$1.00

## ACID HYDROMETER WITH THERMOMETER

Same as above for testing acid in storage battery.

Price . . . . . \$1.00

## FREEZOMETER

Freezometer with Thermometer, length 6". Special scale. Minus 5 degrees to plus 30 degrees Fahrenheit. 5 degrees variation. Thermometer and correction scale in body of hydrometer.

Packed in flannel bag with test jar in a wood box.

Price . . . . . \$1.25

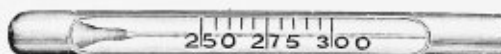
## PLAIN FREEZOMETER

Special Scale. Minus 5 degrees to plus thirty degrees Fahrenheit. 5 degrees variation. Length 6".

Packed in flannel bag with test jar in a wood box.

Price . . . . . 50 cents

## VULCANIZING THERMOMETER



To test heat of Vulcanizer.

Price . . . . . 50 cents



## MICHIGAN STORAGE BATTERIES



LIGHTING BATTERY



IGNITION BATTERY

The Michigan Storage Battery has been on the market for the past ten years. During that time it has built up a remarkable reputation, because these Batteries have always given satisfaction and substantiated our claims for them.

The policy of the Michigan Storage Battery Company has always been "quality first," and with this in mind they have been improving their Batteries whenever possible.

We offer you today a Battery that ranks with the best, which fact we stand ready to demonstrate by means of any test, which you may suggest.

### LIGHTING BATTERIES

	Height	Width	Length over all	Capacity— Amp.	Weight Lbs.	Price
L 76	9 $\frac{1}{8}$	7 $\frac{3}{8}$	6 $\frac{3}{4}$	40-60	27	\$18.00
L 96	9 $\frac{1}{8}$	7 $\frac{3}{8}$	8 $\frac{1}{16}$	55-80	33	21.00
L 116	9 $\frac{1}{8}$	7 $\frac{3}{8}$	9 $\frac{1}{4}$	70-110	39	24.00
L 136	9 $\frac{1}{8}$	7 $\frac{3}{8}$	10 $\frac{3}{4}$	90-130	45	27.00

### IGNITION BATTERIES

I 36	9 $\frac{1}{8}$	7 $\frac{3}{8}$	4	40	13	12.00
I 56	9 $\frac{1}{8}$	7 $\frac{3}{8}$	5	60	19	15.00

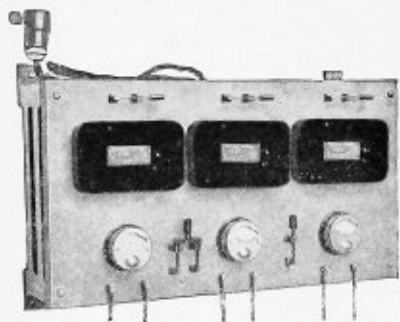
### STARTING BATTERIES (6 Volt)

S 96	9	7 $\frac{3}{8}$	8 $\frac{1}{16}$	165	38	27.00
S 116	9	7 $\frac{3}{8}$	9 $\frac{1}{4}$	225	43	30.00
S 136	9	7 $\frac{3}{8}$	10 $\frac{3}{4}$	275	51	33.00

### OTHER VOLTAGES SPECIAL LIST.

**GUARANTEE.** Factory guarantee covers all material, workmanship and durability, but against abuse or disregard for the proper care of a battery we are not responsible.

We will gladly replace any battery or parts which do not come up to all claims, provided they are shipped to us with transportation charges prepaid. Factory does not make replacements on parts or batteries where the charges are not prepaid.



## ST. LOUIS BATTERY CHARGERS

This device is so simple in operation, the handling can be left to a boy. Enables the garage man to charge batteries over night, and charge them fully.

Will pay for itself in a few weeks.

**Type 1 M** For charging three cell 6-volt batteries from 60 to 120 ampere hour capacity. Will charge two 60 ampere hour batteries per day of 24 hours.

### PRICE

Without ammeter,	\$20.00 net
With ammeter,	24.00 net

**Type 2 MB** For charging two 6-volt or one 12-volt batteries; also singly 6-volt batteries on each movement. Will charge four 60 ampere hour batteries per day.

Price	\$40.00 net
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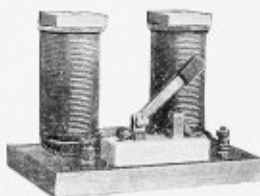
**Type 3 MF** For charging from one to three 6-volt, one 12 and one 6, one 18-volt, or one 24-volt and one 6-volt batteries. Will charge six 60 ampere hour batteries per day. High charging rate may be had if desired.

Price	\$60.00 net
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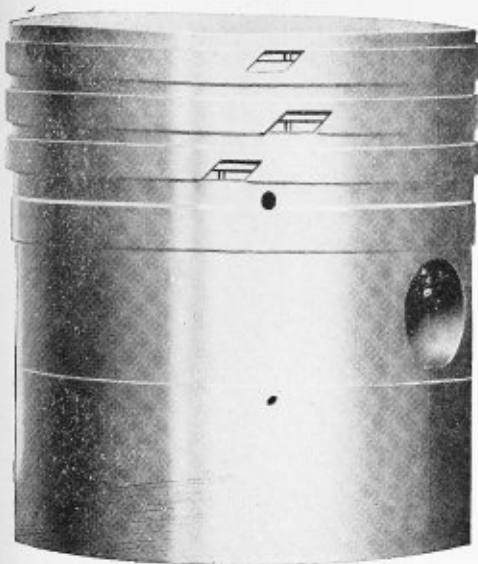
## THE ST. LOUIS MAGNETIZER

*You Can Now Recharge Magnetos*



THE ST. LOUIS MAGNETIZER is a simple and inexpensive device for charging so-called permanent magnets used on all magnetos. Operates by connecting with a 6-volt storage battery or dry batteries and is indispensable in overhauling and repairing ignition systems. Takes less than a minute to remagnetize a magnet. Why be without one when they cost **only \$7.50 net?**

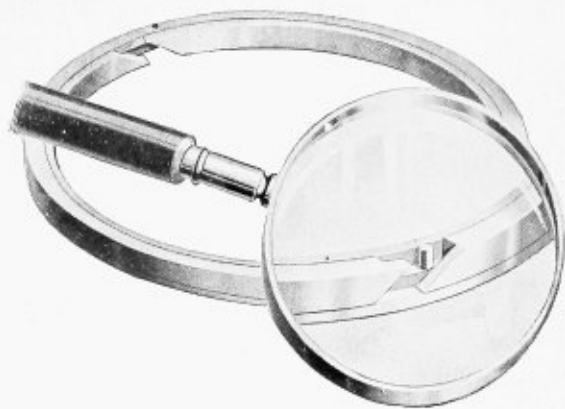
Special attachment for charging Ford Magnetos without removing from the car furnished at \$1.00 extra.



SIOUX HIGH COMPRESSION RINGS STAND FOR QUALITY AND ACCURACY. THE DESIGN ON THESE PISTON RINGS ARE THE MOST SUCCESSFUL AND WILL HOLD COMPRESSION IN A WORN CONDITION.

WE GUARANTEE THE SIOUX HIGH COMPRESSION PISTON RINGS AGAINST ALL BREAKAGE EITHER ACCIDENTAL OR OTHERWISE, AND TO HOLD COMPRESSION AND STILL LUBRICATE THE RINGS ENOUGH FOR ANY SPEED.

WHEN INSTALLING RINGS PLACE THE UPPER RING WITH PIN SIDE UP, THE LOWER RINGS WITH PIN SIDE DOWN LIKE CUT ABOVE.

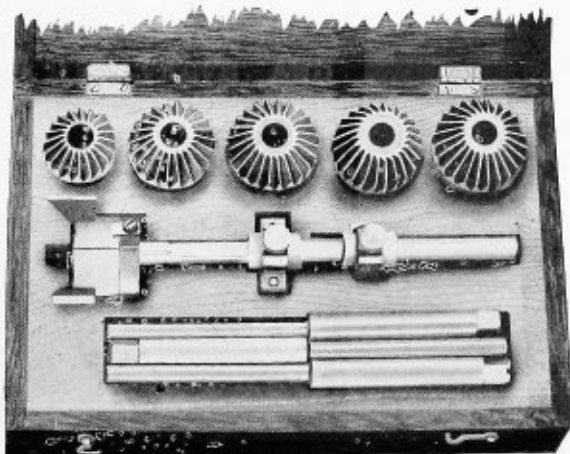


## Sioux High Compression Piston Ring

### PRICE LIST

2 3-4 Diam.	3-16 to 1-4 Width	.....	\$1.25
2 7-8 "	3-16 to 1-4 "	.....	1.25
3 ... "	3-16 to 1-4 "	.....	1.25
3 1-8 "	3-16 to 1-4 "	.....	1.25
3 1-4 "	3-16 to 1-4 "	.....	1.25
3 3-8 "	3-16 to 1-4 "	.....	1.25
3 1-2 "	3-16 to 5-16 "	.....	1.25
3 5-8 "	3-16 to 5-16 "	.....	1.50
3 3-4 "	3-16 to 5-16 "	.....	1.50
3 7-8 "	3-16 to 5-16 "	.....	1.50
4 ... "	3-16 to 5-16 "	.....	1.50
4 1-8 "	1-4 to 5-16 "	.....	1.50
4 1-4 "	1-4 to 5-16 "	.....	1.50
4 3-8 "	1-4 to 5-16 "	.....	1.50
4 1-2 "	1-4 to 5-16 "	.....	1.50
4 5-8 "	1-4 to 5-16 "	.....	1.50
4 3-4 "	1-4 to 5-16 "	.....	1.50
4 7-8 "	1-4 to 5-16 "	.....	1.50
5 ... "	1-4 to 5-16 "	.....	1.50
Ford Special		.....	1.00

THESE TOOLS ARE DESIGNED TO REAM THE VALVE AND THE VALVE CAGE. THESE RE-SEATERS ARE BUILT ON THE REAMER PRINCIPLE AND WILL PERFORM THE SAME ACCURACY OF WORK.



THE VALVE REAMING TOOL IS DESIGNED ESPECIALLY FOR THE REAMING OF THE POPPET VALVES. RAPID AND ACCURATE WORK IS THE RESULT OF THIS TOOL. MADE TO FIT ALL VALVES OF THREE STANDARD ANGLES, 30-45-60 DEGREES.

Pat. Feb. 14, 1913

Every Garage and Repair shop should have these tools. These are the greatest time and labor saving tools ever invented for the purpose. Price \$22.50.

## WAGNER AUTO ENGINE CLEANER



The dirt and grease destroyer something every motorist needs. There is nothing like a clean Motor. The Wagner Engine Cleaner not only keeps the Motor clean, but will save 50% repairs on your car because by using Cleaner you keep grit away from wearing parts. You clean places you cannot reach any other way.

Simple and economical, it only requires six pounds of air pressure to operate and one quart of kerosene will clean any size Motor. No need of soiling the hands or using overalls to clean Motor.

**Price, \$1.50**

## WAGNER PACKARD VALVE CAP TOOL



For the easy removal of valve caps. A necessity in every shop. The only tool that will take out the valve cap without injuring the cap. Designed especially for Packards. Fits the valve cap exactly—no cut edges. Made of steel throughout.

**Price, \$1.50 Each.**

## BECKER BROTHERS BRUSHES

FOR

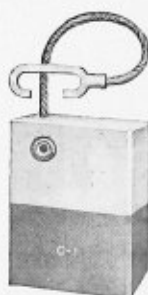
AUTOMOBILE STARTING MOTORS, LIGHTING GENERATORS AND MAGNETOS



U 3



A 30



C 1



G 1

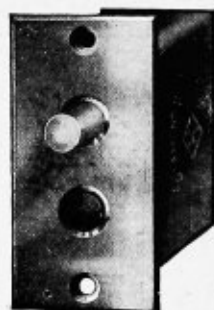
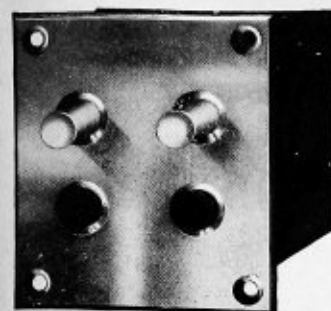


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**Complete list and prices sent on request.**



## PUSH BUTTON AUTOMOBILE LIGHTING SWITCH



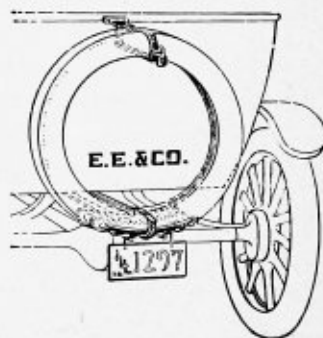
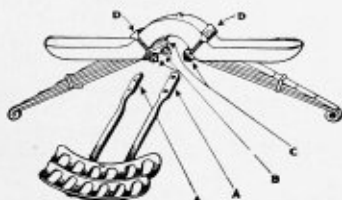
The highest grade switch made for this work. It has a quick make and break, and cannot get out of order. The insulation is Sheet Mica. The face plate is permanently attached to the switch. All the wiring connections are made at the back. Binding screws are provided with inverted cup washers which bind the wire loop, preventing the wiring from jarring loose.

Furnished in nickle, gun metal or polished brass. Packed in individual boxes:

1 Gang	.	.	.	.	\$ .50
2 Gang	.	.	.	.	1.50
3 Gang	.	.	.	.	1.50
4 Gang	.	.	.	.	2.00

Can be used in all circuits up to 24 volt.

## EDELMANN REAR TIRE CARRIER FOR FORD CARS



A simple, effective, substantial tire carrier for two tires.  
Furnished complete with straps.

**Price \$3.00**

## AUTOMATIC DOOR STEP SWITCH

Lights the step light the moment the door is opened. Turns off the light as the door is closed. Prevents accidents.

**Price 35 cents.**





"X" is put up in one pint sealed cans.

One can will repair 2 five gallon radiators.

Packed 1 doz. in box, 6 doz. in case.

Price per can \$1.50.

### THIS ATTRACTIVE SILENT SALESMAN FREE

to dealers with their first order.

Put this case on your counter and watch for results.

It will make money for you.



# "X"

THE ONLY COM-  
POUND WHICH  
WILL WORK IN  
ALCOHOL.

THE ONLY COM-  
POUND WHICH  
CONTAINS NO  
CEMENT.

## THE WONDERFUL LIQUID RADIATOR MEDICINE

Will do a \$25 repair job on a leaking radiator or cracked waterjacket in 10 minutes at a cost of not over \$1.50.

**"X" makes the cooling system**

**LEAK PROOF  
RUST PROOF  
SCALE PROOF**

**An Absolute Necessity  
to Every Car Owner**

**PLEASE REMEMBER.**

An "X" repair will stand 500 lbs. pressure.

"X" is the only compound that cannot clog the radiator because it contains no cement, powder, meal or glue.

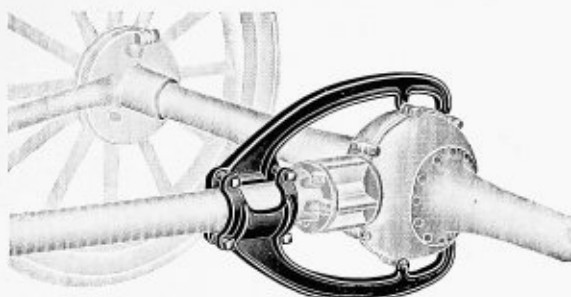
"X" preserves metal and rubber.

**"X" IS GUARANTEED.**

Distributors for Middle Atlantic States  
**ASCH AND COMPANY, Inc. NEW YORK.**



## CARPENTER'S FORDESCO DRIVE SHAFT BRACE



PATENT APPLIED FOR

This device attaches to the drive shaft housing and rear axle of any Model T Ford, making it as rigid as the heaviest car. It keeps the gear pitch in line, thereby eliminating the most frequent source of trouble.

Will eliminate vibrations of the rear axle when starting and stopping, and is especially valuable when non-skid chains are used.

Carpenter's Fordesco was designed by a Ford Repair man who saw the need for a device to strengthen the rear axle and drive shaft.

Made of semi-steel finished in Black Japan. Comes complete with all necessary bolts and can easily be attached in a half hour - - - Price \$5.00

*KEEPS GEAR IN PITCH LINE*

## PRESTO FOOT ACCELERATOR



How many times have you wished for a device such as this attached to your Ford.

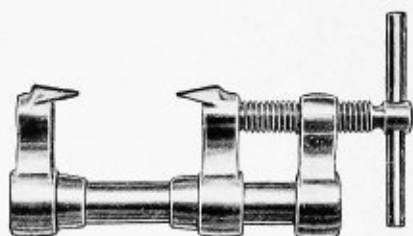
Practically every car but the Ford comes equipped with an accelerator.

Both hands are free for steering. Compared to the ten limited speeds of the hand-throttle, this flexible Foot Accelerator will give a hundred or more varying speeds that will enable you to run and start a Ford free from jerks.

The Presto does not interfere with the Hand Operated Gas Lever and acts independently.

Until the advent of the Presto there have been a number of so-called accelerators on the market, some took as long as five hours to attach, others did not operate satisfactorily. The Presto can be put on by anybody in a half hour or less and when attached needs no attention or adjustment. - Price \$1.50 complete.

## KNOWLSON'S SPRING LEAF LUBRICATOR



### Lubricate Your Springs Properly

AND YOUR CAR WILL RIDE

**100% EASIER,**

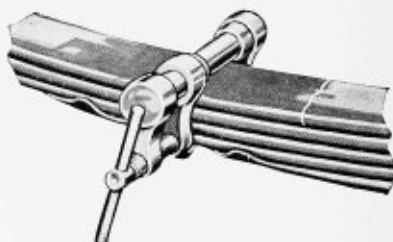
**THE ANNOYING SQUEAK**

will be stopped, assuring you

**More Comfort and Pleasure**

A Strong Practical Tool. Absolutely Necessary in the Equipment of Every Motor Car.

A broken spring can be securely clamped by Knowlson's Spring Leaf Spreader



and you may ride on in safety.

**USE THIS TOOL AND A BROKEN SPRING SELDOM OCCURS.**

**One Broken Spring would Pay for Several of these Tools.**

*A Good Tool*—Made of drop forgings; handsomely nickel-plated and polished. Weighs 15 ounces.

**Price \$1.50**

## Breaznell Clip & Terminal Connectors

(Breaznell Patent)



Insert wire as shown in cut

For spark plugs, jump spark coils and other terminals. Makes durable and reliable connections in wiring. Applied and removed without taking thumb nut off. Holds wires locked without solder as well as gripping and locking on post when nut is screwed down. Permanently trouble proof. Vibration will not loosen. Increases efficiency by always giving perfect contact under vibration. Will fit any thumb nut past up to  $\frac{3}{16}$  inch diameter. Will fit any gauge secondary wire.

**Price 5¢ each**

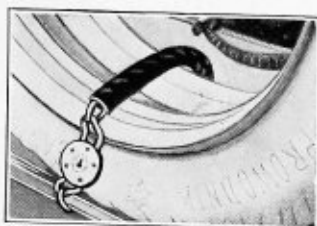


## Breaznell Dry Battery Connectors

Applied and removed without removing thumb nut. Screwing down nut locks them. Increases efficiency by always giving perfect contact under vibration.

**Price 5¢ each**

## THE LOCKING CHAIN BARR PATENT



WHAT IT DOES—saves spare tires from being stolen.

LOCK being part of the Chain—a brand new principle—the LOCK cannot be picked.

The Chain is made of steel, the LOCK of Carbonbronze and brass, making it absolutely rust-proof.

The LOCK is so constructed that a sudden jar which would break an ordinary lock would have no effect on this LOCKING-CHAIN; this makes the first real move forward in padlock and chain mechanism.

Automobile chains, leather covered, 33 to 43 inches long . . . Price, \$2.50

Motorcycle chains, leather covered, 24 inches long . . . . . Price, 2.00

## TIRE CHAINS



A good heavy chain covered with heavy Imitation Leather	36 in. long, 40c.
“ “ “ “ “ “	42 in. long, 50c.
Lock extra - - - -	20c.

## SECURITY SELF VULCANIZING INNER-TUBE PATCHES



We wish to emphasize the words SELF VULCANIZING in connection with Security patches, for a Security patch will actually vulcanize itself to the inner-tube becoming part of same. The pressure on the patch and the heat generated on the tire from running completes the vulcanizing process.

The Self Vulcanizing quality of Security patches has not been sacrificed to compete with the many cheap patches on the market that are very tacky that leads an inexperienced person to believe that a Self Vulcanizing patch must be tacky to hold. This, however, is not the case, for the reason that heat will cause a cheap compounded tacky patch to free itself from the tube, rather than vulcanize and become part of same.

Security Automobile patches are packed 12 assorted sizes in a screw top red tin lithographed box. Security Motorcycle Tire patches are packed 12 assorted sizes in a string fastening indestructible rope paper envelope.

Do not let punctures worry you. Always be sure you carry Security patches.

<b>Price for Auto Tubes</b> . . . . .	<b>50c. Box</b>
<b>" " Motorcycle Tubes</b> . . . . .	<b>25c. "</b>

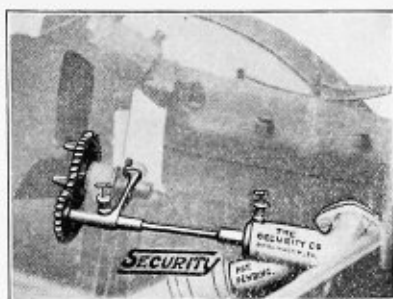
## SECURITY SELF VULCANIZING BLOW-OUT PADS



Security Self Vulcanizing Blow-out Pads made from the same quality Sea Island Cotton Fabric as used by the leading tire manufacturers in building guaranteed tires. Each pad is heavily coated with Security Self Vulcanizing Cement. Before inserting a Security pad wash out the inside of the casing where the patch is to be applied with gasoline and moisten the outside of the patch with clean gasoline and place same in position underneath the Blow-out pressing down firmly with the fingers and you are now ready to insert your tube and inflate same. The pressure on the patch and the heat generated on your tire from running will vulcanize the pad in place.

5 in. patch 4 ply 18 in. long	List \$1.00	5 in. patch 4 ply 12 in. long	List \$.90
4½ in. patch 4 ply 18 in. long	List .85	4½ in. patch 4 ply 12 in. long	List .75
4 in. patch 3 ply 16 in. long	List .75	4 in. patch 3 ply 10 in. long	List .65
3½ in. patch 3 ply 14 in. long	List .60	3½ in. patch 3 ply 10 in. long	List .50
3 in. patch 3 ply 12 in. long	List .45	3 in. patch 3 ply 8 in. long	List .35

## SECURITY WATER PUMP FOR FORD CARS



A gear driven pump of the propeller type that gives a circulation of from ten to fifteen gallons of water per minute with the ordinary running of the car. If for any reason you would disconnect the pump it does not interfere with the ordinary circulation. The Security pump requires no mechanic to attach same as the directions are very simple, and any one with a screw driver and wrench can attach a Security Pump.

A water circulator is the most necessary accessory for the Ford.

Price complete . . . . . \$6.00

## PEERLESS SIMPLEX LEAK PROOF PISTON RINGS



The Peerless Simplex Leak Proof Piston ring consists of one lap joint Piston ring, a special heat proof steel spring for maintaining leak proof seal at lap joint, held in place by small pin. The Peerless Simplex Leak Proof Piston ring is positively Leak Proof. Two or more Simplex Rings per piston should be used, and lapped in on worn cylinder, if not bearing properly in same position as pinned on piston. To place leak proof steel spring in position, place rings partly over ring groove and insert spring underneath and force ring over spring and into place in groove.

### Price List Peerless Simplex Leak Proof Piston Rings

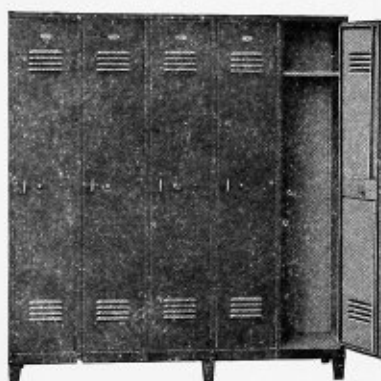
DIAM. (in.)	WIDTH (in.)	PRICE
2½ to 3½	3/16 to ¼	.45
3¾ to 4¼	3/16 to ¼	.50
4¾ to 5	¼ to 5/16	.55
5¼ to 5½	¼ to 5/16	.60
5¾ to 6	¼ to 5/16	.65

## STEEL LOCKERS

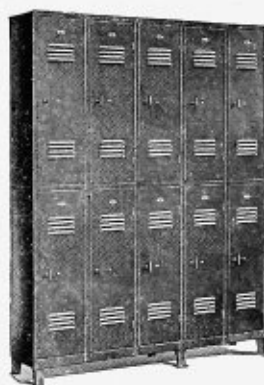
These Lockers are built on the Unit Principle. Prices are knocked down F. O. B. Cleveland for single lockers. Where more than 1 Locker is furnished prices are proportionately lower. Lockers furnished in any quantity.

*Prices furnished. Set up anywhere.*

TYPE OC LOCKERS  
(All Sheet Steel)

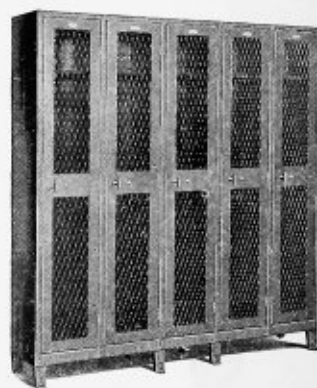


SINGLE TIER



DOUBLE TIER

TYPE OB LOCKERS



DOORS-EXPANDED METAL

### All Steel Lockers

	O C	O B
12 x 12 x 60	\$15.50	\$15.95
15 x 12 x 60	15.85	16.75
18 x 12 x 60	16.85	17.10
15 x 15 x 60	16.30	17.15
18 x 18 x 60	18.20	18.50
12 x 12 x 72	16.45	16.80
15 x 12 x 72	16.70	17.10
18 x 12 x 72	18.00	18.15
15 x 15 x 72	17.35	17.75
18 x 18 x 72	19.25	18.85

### Lockers—Double Tier

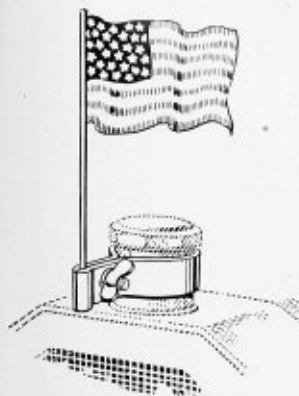
	O C	O B
12 x 12 x 36	\$14.50	\$15.10
12 x 15 x 36	14.65	15.30
15 x 12 x 36	15.60	15.35
15 x 15 x 36	15.80	15.40
18 x 12 x 36	15.80	15.70
18 x 15 x 36	15.90	15.95
12 x 12 x 42	15.25	15.65
15 x 12 x 42	15.75	15.95
15 x 15 x 42	16.10	16.35
18 x 15 x 42	16.70	16.70

Yale Locks \$1.00 each extra  
Miller Keyless " 1.00 " "

Lockers are also furnished with Padlock attachment.

No extra charge.





## M. & M. RADIATOR FLAG HOLDER

A light, well-made and well-finished bracket to hold one flag on the radiator spout of an automobile.

It is beautifully finished in Oxidized Steel.

Many people carry a flag on their motor car radiator, and the demand for Flag Holders is growing every day.

This Holder being very reasonable in price, should appeal to almost anyone who desires his colors with one flag or pennant. It will securely hold various sized flags.

**Price 20 cents**

## M. & M. Special Front Axle License Bracket for Fords.

Fits on front axle of Ford Cars Only, and is adjustable to various sized License Tags. It is out of the way and eliminates all danger of damage to radiator.

It is light, strong and fully lock washered. Can't get loose or rattle, looks well and will outwear your car.

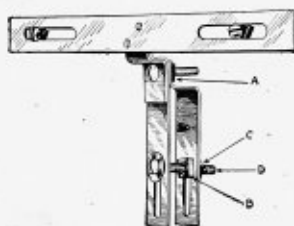
**35 cents each**

## M. & M. Rear Licensed Brackets for Fords.

ON FORD CARS. Held by same bolts that hold Tail Lamp Bracket, by removing Lamp and replacing same over License Bracket. Place License Bracket between body of car and Lamp Bracket, then tighten nuts.

ADJUSTABLE TO FOUR POSITIONS.  
COMPLIES WITH THE LAW.

**Price 35 cents**



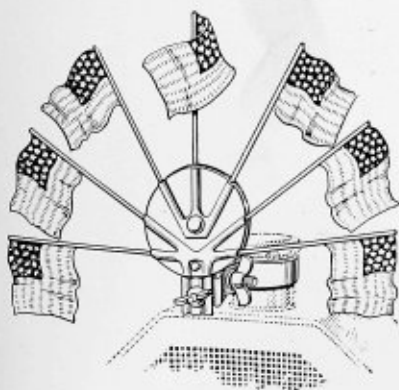
## M. & M. Adjustable Front Axle License Bracket.

Fits on Front Axle.  
Can't get loose or rattle.  
Is lock washered.  
Is light, strong and neat.  
Adjustable to various sized axles.

Nothing to get out of order.  
Nothing to injure your car in any way.  
Will last longer than your car.  
Adjustable to various sized license tags.

**Price 35 cents**

## WONERMOR FLAG HOLDER



Wonermor Flag Holder on Radiator

This Flag Holder is all the name implies—being capable of carrying one or more, up to seven flags. They are beautifully finished in Oxidized Steel.

There are two clamps with the set. One fits around the radiator spout and the other, the smaller, will fit on the headlight brackets, rod between the headlights, windshield, windshield rod, top bow, top iron or wheel spokes.

It is adjustable to various positions on account of the fan being swiveled and for this reason it can be used on an auto top when it is either up or down. The Holder itself is really an ornament without any flags, and in the event of a motorist entering a parade, he can literally cover his car with flags including the wheels without any being lost or displaced. It securely holds various sized flags.

It can also be used for decorating wagons, buggies, motor cycles, motor boats, on the names of a horse's harness as well as in show windows and numerous other places.

**Price 50 cents including two clamps**







NO STOPPING TO LIGHT UP  
with a

# **"Presto" Electric Cigar Lighter**



Specialties listed on the following pages are

MANUFACTURED BY

**METAL SPECIALTIES MFG. CO., Inc.**

Chicago,

III.

All of the articles are guaranteed by the manufacturer and are warranted to be the best that skill and material can produce.

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# Presto PIPE Cigar or Cigarette Lighter

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No. 199 Pipe and Cigar Lighter

Patented April 23, 1907, November 17, 1908, November 24, 1908.

## THE LATEST ADDITION TO A POPULAR LINE

**A very neat lighter with an attractive holder.** The heating element is made of **"Tungstenite" Chromium nickel** to reduce first cost of the lighter and also to reduce the cost of renewal heating elements (tips.)

Note the tip is made small so that it can be stuck into a pipe, thereby making this lighter suitable for all uses as it will light equally well a pipe, cigar or cigarette.

Six volt outfit will be sent, unless otherwise ordered. Seven and eight volt outfits cost you no more. For cost of higher voltages see below.

**No. 199** Complete with "Tungstenite" chromium nickel 6-volt lighter tip, full nickel-plated holder, ten feet of cord and Edi-Swan plug as illustrated - - - - - **\$1.50**

For 6, 7 or 8-volt "Tungstenite" tips with pipe lighter no extra charge is made; but for 10, 12 and 14-volt tips add 25c. For 16, 18 and 21-volt tips add 50c.

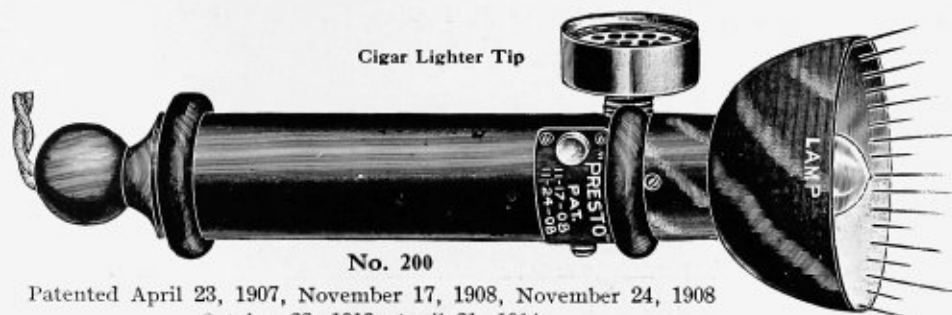
For cost of extra tips see page 7

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# Combination "Presto" ELECTRIC CIGAR LIGHTER ELECTRIC REPAIR LAMP ACETYLENE LAMP-LIGHTER 3 in 1



Patented April 23, 1907, November 17, 1908, November 24, 1908  
October 28, 1913, April 21, 1914.

## **DURABLE! ECONOMICAL! EFFICIENT!** For Automobiles, Electric Vehicles, Electric and Gasoline Launches

Has two press buttons and no loose parts to be interchanged.  
Handle ebony finish, all metal parts brass, nickel-plated. Polished ivory finish push buttons.

When you want to smoke, simply press the larger button and light a cigar or cigarette going at any speed--no stopping to light up!

**Wind--Weather--Speed make no difference.**

**Draws small current and only when in use.**

**Nothing to get out of order.**

Cigar lighter tip renewable at small cost.

Always at your elbow and within easy reach of everyone in the car.

When you want a light, press the smaller button; lamp will remain lighted until released.

If you have trouble; here's a handy exploring lamp.

**No striking of matches** or removing headlights. It leaves both hands free.

**Absolutely safe--does away with danger of fire.**

Your "Auto" is not Complete without a  
**COMBINATION "PRESTO" CIGAR LIGHTER and LAMP**

**--- PRICE ---**

**Complete** with 10-feet of silk cord, to connect to electric battery or cord winder, 6-volt, **pure platinum** lighter tip and 6-volt, 4-candle power Tungsten miniature base bulb, equipped with battery or Anchor plug terminals - - - - - **\$3.50**

For 6, 7 or 8-volt platinum lighter tips with cigar lighter no extra charge is made; but for 10-volt platinum tips add 25 cents; for 12-volt add 50 cents; for prices of higher voltage tips see page 7.

For bulbs over 10-volt add 30 cents

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

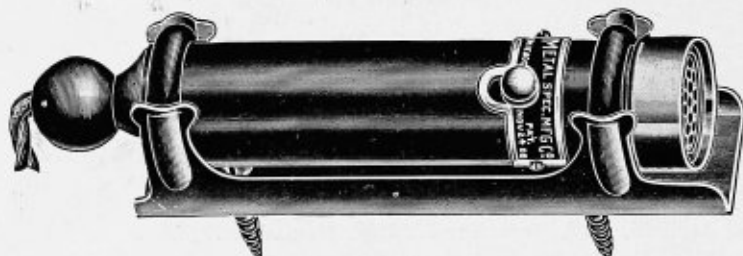
ASCH AND COMPANY  
INCORPORATED

NEW YORK

# Presto

ELECTRIC CIGAR LIGHTER  
ACETYLENE LAMP LIGHTER 2<sup>IN</sup>1

DURABLE! ECONOMICAL! EFFICIENT!



No. 202

Patented April 23, 1907, November 17, 1908, November 24, 1908.  
October 28, 1913, April 21, 1914.

Six volt outfits will be sent, unless otherwise ordered.

Greatly Improved and Perfected  
For Automobiles, Electric Vehicles, Electric and Gasoline Launches.

ALL PARTS BRASS, NICKEL-PLATED. POLISHED IVORY FINISH PUSH BUTTONS.

When you want to smoke:

Simply press the button and light a cigar or cigarette going at any speed--no stopping to light up!

Draws small current and only when in use. Not cumbersome--just a handful.

Nothing to get out of order. Cigar lighter tip renewable at small cost.

Always at your elbow and within easy reach of every one in the car.

SEE DESCRIPTION OF HOLDER ON OTHER PAGE

Your "Auto" is not Complete without a  
"Presto" Electric Cigar Lighter

## - - - PRICE - - -

Complete with ten feet of silk cord, to connect to electric batteries and	
6-volt pure platinum tip and nickel-plated holder, equipped with	
battery or Anchor plug terminal	\$2.75
Cigar Lighter with holder	\$2.50

For 6, 7 or 8-volt platinum lighter tips with cigar lighter no extra charge is made; but for 10-volt platinum tips add 25 cents; for 12-volt add 50 cents; for prices of higher voltage tips see page 7.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# Presto De Luxe CIGAR LIGHTER Tonneau Search-Light



No. 203

In this type we have all the grace and beauty in design of the **FAMOUS 202 STYLE "PRESTO" CIGAR LIGHTER**, with the added convenience of a small search-light for lost articles about the floor or seats of the car.

It is fitted with five feet of black silk cord, ebony finish handle, pearl push buttons, all nickel finished metal parts and has an **Anchor Socket Plug** on end of wire.

Note illustration below showing the complete nickel-plated holder with lamp bulb. To convert cigar lighter to search-light, remove the cigar lighter tip and remove the lamp bulb and screw the latter in place of the lighter tip, press the button and you have the light.



No. 203

## --- PRICE ---

### "Presto" De Luxe Cigar Lighter Combination

**Complete** with five feet of black silk cord, ebony finished handle, pearl push buttons, Anchor plug, full nickel-plated holder and 6-volt Tungsten bulb

**\$4.50**

For 6, 7 or 8-volt platinum lighter tips with cigar lighter no extra charge is made; but for 10-volt platinum tips add 25 cents; for 12-volt add 50 cents; for prices of higher voltage tips see page 7.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

**"Presto" STAR and FORD  
WATCH TYPE Cigar Lighters**

Design Patented December 9, 1913



No. 204



Showing operation of holder



No. 205

The **"Presto" Ford Cigar Lighter** is designed especially for the "Ford Car" and gets its power direct from the magneto. It is equipped with a lighter tip which is especially suited to the Ford Magneto and is marked **"Ford Special"**

It is equipped with 10-feet of silk cord which can easily be attached by leading the wires between the dash and foot board, connecting one terminal to the binding post on top of Magneto and the other one to any one of the screws which hold the cover on the gear case.

The **"Presto" Star Cigar Lighter** is constructed exactly like the "Presto" Ford, except that it is designed to be used on all other makes of cars and is furnished with a **6-volt cigar lighter tip** unless otherwise specified.

**Nickel-Plated Holder** is furnished with each cigar lighter which can be attached anywhere in your car. The cigar lighter case is made of polished wood, ebony finish. All metal parts are heavily nickel-plated.

The **Heating Wire** in all "Presto" Cigar Lighter Tips is **pure platinum**. This Cigar Lighter, designed in the shape of a watch is an ornament to any car--neat in appearance--most attractive--and always at hand for immediate use.

**When you want to smoke:-**

**Press the stem--going at any speed, and, "Presto" you have a light. No stopping to light up!**

**Absolutely safe--all metal parts thoroughly insulated.**

**Does away with the use of matches and all danger of fire.**

**- - PRICES - -**

**"Presto" Ford Cigar Lighter**, complete with holder and **"Ford Special"**

Pure Platinum Tip, 10-feet of silk cord and plain terminals - - **\$2.50**

**"Presto" Star Cigar Lighter**, complete with holder, 6-volt Pure Platinum

Tip, 10-feet of silk cord and either battery or Anchor Plug Terminals **2.50**

When ordering Ford cigar lighters be sure to specify whether model is previous to 1915 or not. See page 7 for prices on tips.

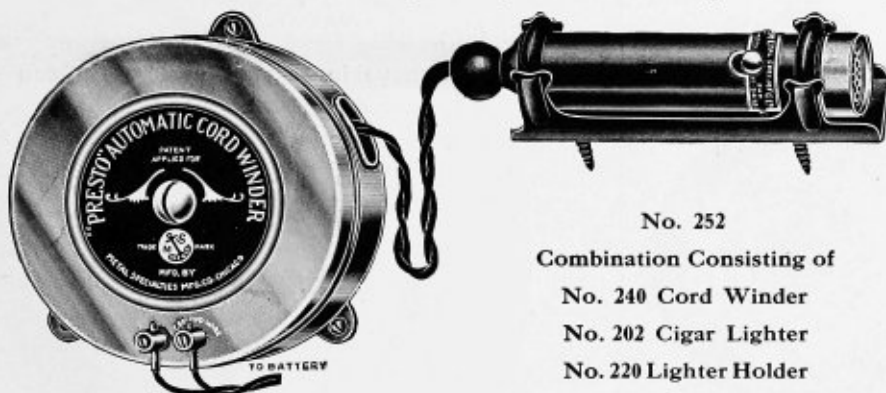


ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Presto" AUTOMATIC Cord Winder

For all kinds of "Presto" Cigar Lighters and Inspection Lamps



No. 252

Combination Consisting of  
No. 240 Cord Winder  
No. 202 Cigar Lighter  
No. 220 Lighter Holder

This most useful article is in great demand. It winds up the cord automatically and effectually, takes care of the cord on the cigar lighters and inspection lamps. It gives the finishing 'touch of elegance' and usefulness to the cigar lighters and can be used in connection with any of our "Presto" Cigar Lighters and Inspection Lamps. It can be fastened under the seat, at the side of the car, or behind the dash, or wherever it would be most convenient for the parties wishing to use the cigar lighter.

The Automatic Cord Winder is our latest addition to the most complete line of cigar lighters ever shown in any country. It is made regularly in black rubber finish, with silver-plated name plate; but can be had in heavy brass, nickel-plated at a small additional cost.

## - - - PRICES - - -

No. 240 "Presto" Automatic Cord Winder (only) black rubber finish	\$2.50
No. 202 "Presto" Cigar Lighter, without cord winder	2.50
No. 220 Holder for Cigar Lighter (only)	.25
No. 252 Complete combination, Automatic Cord Winder and "Presto" Cigar Lighter No. 202 and Holder as illustrated	5.00

## OTHER COMBINATIONS WITH AUTOMATIC CORD WINDERS

No. 250 Automatic Cord Winder, with No. 200 "Presto" Combination Cigar Lighter and Lamp and Holder	6.00
No. 251 Automatic Cord Winder, with No. 201 "Presto" Inspection Lamp and Holder	4.50
No. 253 Automatic Cord Winder, "Presto" De Luxe Cigar Lighter complete with lamp and holder	7.00
No. 254 Automatic Cord Winder, "Presto" Ford Cigar Lighter complete	5.00
No. 255 Automatic Cord Winder, "Presto" Star Cigar Lighter complete	5.00

For 6, 7 or 8-volt platinum lighter tips with cigar lighter no extra charge is made; but for 10-volt platinum tips add 25 cents; for 12-volt add 50 cents; for prices of higher voltage tips see page 7.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

**Presto CIGAR LIGHTER PARTS and Accessories**

Platinum  
Cigar Lighter Tip

Prices on "Tungstenite"  
pipe lighter tips on margin  
opposite.



No. 4      No. 9  
ANCHOR PLUGS  
for wire terminals



MINEATURE BASE BULBS

6-volt to 8-volt .30  
10-volt to 14-volt .40  
16-volt to 21-volt .50  
24-volt .60

**PRESTO CIGAR LIGHTER "TIPS"**

The heating element ("Tip") of our cigar lighters is removable so that a new tip can be bought and screwed on in case one should burn out. The heating wire is **pure platinum**, giving it the necessary lasting quality which cannot be secured in any other kind of wire.

The heating element is protected by a perforated mica covering and the mica is protected by a metal star, thereby insuring long life to the coil. In ordering a tip be sure and **order one of same voltage as your battery.**

**Platinum Cigar Lighter "Tips"**

6-volt .....	\$1.00
7-volt .....	1.00
8-volt .....	1.00
10-volt .....	1.25
12-volt .....	1.50
14-volt .....	1.75
18-volt .....	2.00
21-volt .....	2.50
24-volt .....	2.50
"Ford Special" for cars previous to 1915 .....	1.00
1915 and 1916 Ford tips .....	1.00

**Presto Pipe Lighter "Tips"**

The heating element ("Tip") of our pipe lighter is removable so that different voltages can be used. The heating wire is "Tungstenite" Chromium nickel thereby allowing the tip to be produced at a lower price.

**Chromium Nickel Pipe Lighter "Tips"**

6, 7 & 8-volt tips .....	.75
10, 12 & 14-volt tips .....	\$1.00
16, 18 & 21-volt tips .....	1.25

All Presto tips are interchangeable and can be used on any style cigar lighter of our make.

**Be sure to order tips of same voltage as your battery.**

**Anchor Bayonet Type Plugs**

No. 4 Plug for wire terminal .....	.25
No. 9 Plug for wire terminal .....	.25
No. 9 Single contact, used on single wire lighting systems .....	.25

**Presto****INSPECTION and  
TROUBLE****Lamps**

No. 290-291-292

**A real search-light and trouble lamp combined in one.** The best light to be used along the road at night, for reading road and street signs, house numbers doing repair work, etc. Notice the convenient "on and off" switch in the handle; gives you a flash or locks for a continuous light as desired.

**This lamp is beautifully finished throughout.** Has ten feet of black cord, black handle, heavy brass polished nickel-plated reflector, and housing with 1 $\frac{3}{4}$ -inch bulls-eye lens. Lamp and socket are bayonet (Edi-Swan) type and an adjustable hook hanger for repair work; makes this the most complete lamp of its kind on the market.

**PRICES**

No. 290 Combination trouble lamp and search-light, made especially for reading sign-boards, house numbers, etc., at a distance; has a powerful lamp bulb and bulls-eye lens; handsomely finished throughout; has convenient switch in handle; black handle and cord; heavy brass, nickel-plated. Complete with battery terminals, no bulb.....	\$2.00
No. 291 Same as No. 290, with 6-volt, 6-c. p. Edi-Swan base bulb.....	2.25
No. 292 Same as No. 291, but fitted with either single or double contact Anchor plug and 6-volt, 6-c. p. bulb.....	2.50



No. 275-276-277

**This inspection lamp is designed for general utility** around any automobile, or motor boat. It is equipped with a bayonet type lamp socket, 10-foot cotton cord and our new adjustable hook for supporting the lamp in any location.

**This movable hook** may be easily slipped along the cord until the lamp is adjusted to the desired position and will then clamp the cord securely.

**The handle is made of hard wood, black finish,** with nickel-plated ferrule. The wire guard is exceptionally heavy and substantial.

**The one-third reflector** is nickel-plated and highly polished and gives ample reflecting surface.

**PRICES**

No. 275 One-third reflector, wire guard, 10 feet cotton cord, regular battery terminals, adjustable hook hanger, Edi-Swan lamp socket, no bulb.....	.75
No. 276 Same as No. 275, with 6-volt, 4 c. p. tungsten bulb.....	\$1.00
No. 277 Same as No. 276, with Edi-Swan plug terminal instead of plain battery terminals and 6-volt, 4-c. p. tungsten bulb.....	1.25

**TROUBLE LAMPS ARE MADE IN DOUBLE AND SINGLE CONTACT; IF NOT SPECIFIED DOUBLE CONTACT WILL BE SHIPPED.**

# Presto INSPECTION and Lamps TROUBLE



No. 280-281-282

**This trouble lamp has created a big sensation**, because "it looks the part." With a three inch solid brass, highly polished, nickel-plated reflector, one gets all the light possible on the work at hand.

**For general repair work around an automobile** or a motor boat, this lamp has no equal. It throws an exceptionally strong light with sufficient spread for all purposes.

It is equipped with 10-feet of black cotton cord and an adjustable hook hanger. The handle is finished in black enamel, the lamp socket is Edi-Swan type and the bulb tungsten Edi-Swan base.



No. 285-286-287

This trouble lamp is the same as No. 280 type with the addition of a three-inch bulls-eye lens for reading house numbers, street signs, etc.

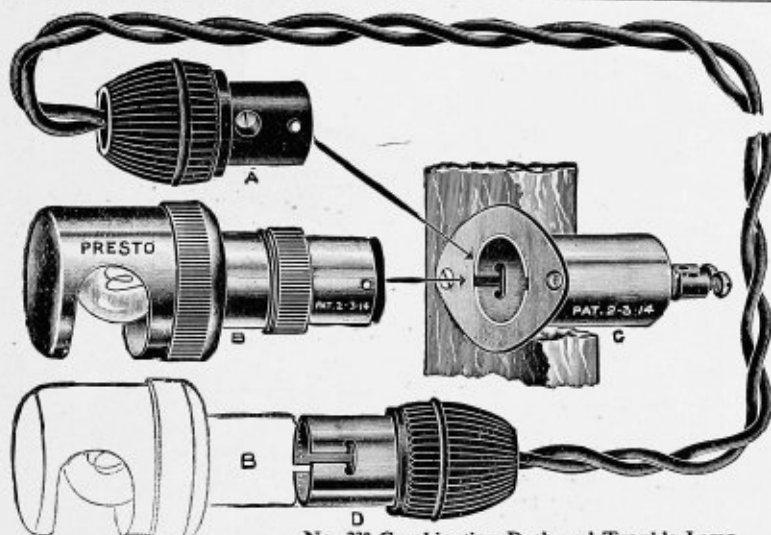
## PRICES

No. 280 Full reflector, 3-inch diameter, nickel-plated, highly polished, 10-feet black cotton cord, regular battery terminals, Edi-Swan lamp socket, no bulb.....	75
No. 281 Same as No. 280, but fitted with a 6-volt, 4-c. p. tungsten bulb.....	\$1.00
No. 282 Same as No. 281, but fitted with either single or double contact Anchor plug.....	.25
No. 285 Full reflector, nickel-plated, highly polished, 3-inch bulls eye lens for reading street signs and house numbers from the car, complete with 10-feet black cotton cord, regular battery terminals, Edi-Swan lamp socket, no bulb.....	1.00
No. 286 Same as No. 285, but fitted with a 6-volt, 4-c. p. tungsten bulb.....	1.25
No. 287 Same as No. 286, but fitted with either single or double contact Anchor plug.....	1.50

Inspection lamps are made in double and single contact; if not specified double contact will be shipped.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

# Presto COMBINATION DASH and Trouble Lamps



No. 230 Combination Dash and Trouble Lamp

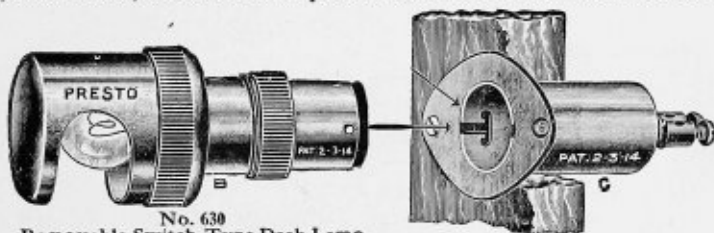
This combination is suitable for any car. Finished in polished nickel-plate. In ordinary use it is a first-class dash lamp and may be used to illuminate the Speedometer, Vibrator, Clock, Pedals, etc. The light is turned on and off by means of the two-way socket. A slight turn to the right turns it on, and a turn to the left turns it off.

Note the threaded lock nut on part B, which holds the lamp head securely in the dash socket, preventing all rattle and wear of parts; also theft of lamp head and switching on and off of light by meddlers.

When desired it can be easily converted into a trouble lamp. Simply remove the lamp socket B, from the dash socket C and use the 10-feet of wire fitted with Bayonet plug and Bayonet plug socket; connect the plug A to the socket C on the dash and the other end to the reflector and lamp B as shown in illustration B D. All of this is furnished complete to make up a handy trouble lamp, when something goes wrong, all you have to carry in the tool box is the cord.

## -- PRICES --

No. 230 Combination Dash and Trouble Lamp, complete with 10-feet of black cotton cord as shown in illustration above, and 6-volt, 2-candle power tungsten Edi-Swan base bulb	<del>\$2.70</del>	\$2.00
No. 231 Same as No. 230, without the lamp bulb	<del>2.35</del>	1.75



No. 630  
Removable Switch Type Dash Lamp

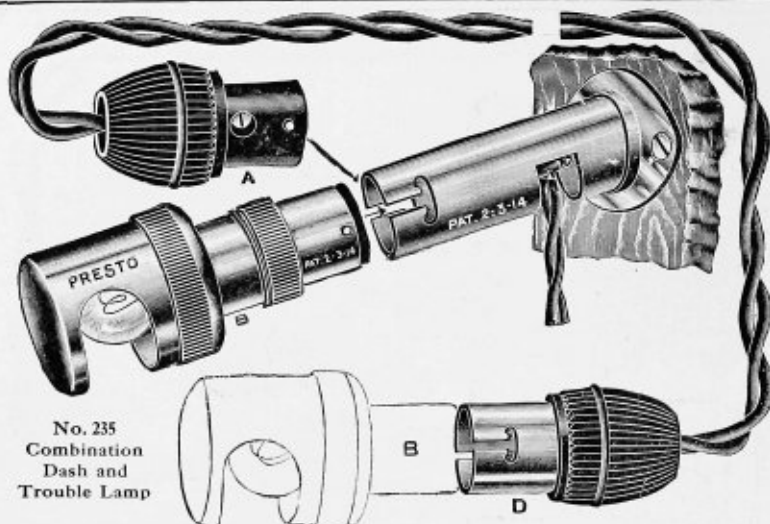
We find a demand for a dash lamp that is removable, thereby leaving a dash socket into which regular trouble lamps, search-lights or cigar lighters can be instantly plugged. By using the dash lamp of No. 230 combination we fill this demand, also give the motorist a dash lamp with a switch in the base to turn the light on or off. Note the switch type socket.

## --- PRICES ---

No. 630 Complete as illustrated above, with 6-volt, 2-candle power tungsten bulb	<del>\$1.70</del>	\$1.25
No. 631 Same as No. 630, without the lamp bulb	<del>1.35</del>	1.00
Part B only with 6-volt, 2-candle power tungsten bulb	<del>1.35</del>	1.00
Part A D with cord as illustrated	<del>1.00</del>	.75

Dash lamps are made in double and single contact; if not specified double contact will be shipped.



**Presto COMBINATION DASH and Trouble Lamp for Fords**

No. 235  
Combination  
Dash and  
Trouble Lamp

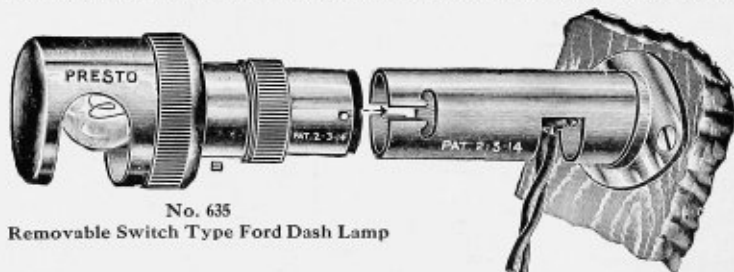
This combination is best suited for Ford cars. Finished in polished nickel-plate. In ordinary use it is a first-class dash lamp and may be used to illuminate the Speedometer, Vibrator, Clock, Pedals, etc. The light is turned on and off by means of a two-way socket. A slight turn to the right turns it on, and a turn to the left turns it off.

Note the threaded lock nut on part B, which holds the lamp head securely in the dash socket, preventing all rattle and wear of parts; also theft of lamp head and switching on and off of light by meddlers.

When desired it can be easily converted into a trouble lamp. Simply remove the lamp socket B, from the dash socket and use the 10-feet of wire fitted with Bayonet plug A and Bayonet plug socket D; connect the plug to the socket on the dash and the other end to the reflector and lamp B, as shown in the illustration B D; all of which is furnished complete with either a 3 volt, 2-candle power tungsten lamp, so that it can be attached to two dry cells, or a 6-volt, 2-candle power bulb when desired to run off a storage battery.

--- PRICES ---

No. 235 For Ford Cars this combination is furnished complete with a 6-volt, 2-candle power bulb, unless otherwise specified. Note the 10-degree angle inside lead dash socket, necessary for attachment to Ford dash.....\$2.00  
No. 236 Same as No. 235, without the lamp bulb.....1.75



No. 635  
Removable Switch Type Ford Dash Lamp

On many cars the instruments set out quite a distance from the dash and to properly light them, the dash lamp must have a long reach and throw the light at an angle. The above illustration shows a removable type, 10-degree angle lamp, with switch in the dash socket. As the hood on the Ford car is below the instruments, the wires cannot be carried through the dash so socket is provided for inside lead wires, with either 6-volt, 2-c. p. or 3-volt, 2-c. p. bulb

--- PRICES ---

No. 635 Complete as illustrated above, with 6-volt, 2-c. p. bulb, unless otherwise specified.....\$1.25  
No. 636 Same as No. 635, without lamp bulb.....1.00  
Part B only with 6-volt, 2-candle power tungsten bulb.....1.00  
Part A D with cord as illustrated......75

Dash lamps are made in single and double contact; if not specified double contact will be shipped.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

ASCH AND COMPANY  
INCORPORATED

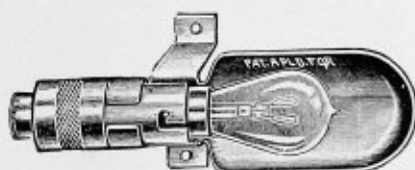
NEW YORK

# Presto DASH and COWL Lamps



No. 600 Straight Neck Dash Lamp  
Length from Dash to bulb center  $3\frac{3}{4}$ -inches  
Net weight 3 oz.

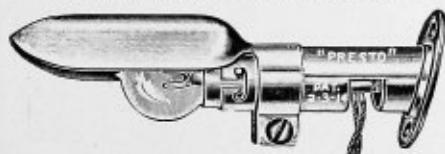
- No. 600 Dash or Gauge Lamp, straight neck, full nickel-plate, "on and off" switch type bayonet socket complete with 6-volt, 2-candle power tungsten bulb..... \$1.00
- No. 601 Same as No. 600, without the lamp bulb..... .75



No. 605 Cowl Dash Lamp  
Length over all  $4\frac{1}{2}$ -inches  
Net weight  $2\frac{1}{4}$  oz.

This cowl lamp is especially designed to be used in the cowl of an automobile, sets on an angle of 45-degrees.

- No. 605 Cowl Lamp, heavy brass nickel plated, metal cap covering screw terminal, Anchor bayonet socket with 6-volt, 2-candle power bulb. \$1.00
- No. 606 Same as No. 605, without the lamp bulb..... .75



No. 627 Dash Lamp for Ford 10-degree angle  
Length from Dash to bulb center  $2\frac{1}{2}$ -inches  
Net weight  $2\frac{1}{4}$  oz.

- No. 627 Short Dash Lamp for Fords, complete with 6-volt, 2-candle power tungsten bulb and "on and off" switch type bayonet lamp socket, 10° angle..... \$1.00
- No. 628 Same as No. 627, without the lamp bulb..... .75



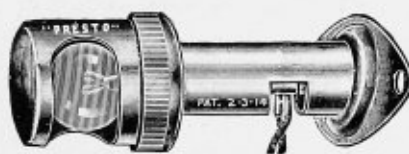
No. 602 Dash Lamp 45-degree angle  
Length from Dash to bulb center  $3\frac{1}{2}$ -inches  
Net weight  $3\frac{1}{2}$  oz.

- No. 602 Angle Dash Lamp, complete with reflector and 6-volt, 2 candle power tungsten bulb, with switch type bayonet socket. Length from dash to 45-degree angle neck 1-inch..... \$1.00
- No. 603 Same as No. 602, without the lamp bulb..... .75



No. 608 Short Dash Lamp  
Length from Dash to bulb center  $2\frac{1}{2}$ -inches  
Net weight  $2\frac{1}{4}$  oz.

- No. 608 Short Dash or Gauge Lamp, straight neck, full nickel-plate, on and off switch type bayonet socket, complete with 6-volt, 2-candle power tungsten bulb... \$1.00
- No. 609 Same as No. 608, without the Lamp bulb..... .75



No. 637 Round Head Lamp for Ford 10° angle  
Length from Dash to bulb center  $2\frac{1}{2}$ -inches  
Net weight  $2\frac{1}{4}$  oz.

- No. 637 Round Head Dash Lamp for Ford, full nickel-plate, complete with switch type bayonet lamp socket and 6-volt, 2 candle power tungsten bulb..... \$1.00
- No. 638 Same as No. 637, without the lamp bulb..... .75

Dash lamps are made in double and single contact; if not specified double contact will be shipped. On single contact lamps switch type socket not used.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.



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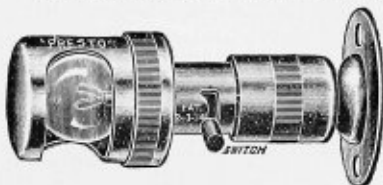
## Presto SWITCH TYPE Dash Lamps



No. 610-S Straight Neck for Fords  
Length from Dash to bulb center  $3\frac{3}{4}$ -inches  
Net weight  $2\frac{3}{4}$  oz.

No. 610-S Dash or Gauge Lamp, straight neck, full nickel-plate, with self contained turn switch. Bayonet type lamp socket, complete with 6-volt, 2-candle power tungsten bulb.-----\$1.25

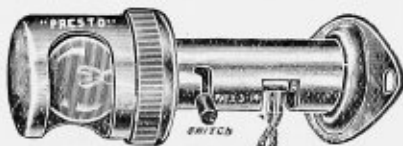
No. 611-S Same as No. 610-S, without the lamp bulb.-----1.00



No. 618-S "Bull Dog" Lamp  
Length from Dash to bulb center  $2\frac{1}{2}$ -inches  
Net weight  $2\frac{1}{2}$  oz.

No. 618-S "Bull Dog" Dash Lamp is everything the name implies. Strong, heavy, short and chunky and built for service. Full nickel plate, with self contained turn switch, bayonet type lamp socket and 6-volt, 2-candle power tungsten bulb.-----\$1.25

No. 619-S Same as No. 618-S, without lamp bulb.-----1.00



No. 637-S Round Head Dash Lamp for Ford  
10-degree angle  
Length from Dash to bulb center  $2\frac{1}{2}$ -inches  
Net weight  $2\frac{1}{2}$  oz.

No. 637-S Round Head Dash Lamp for Ford 10-degree angle with self contained turn switch, bayonet type lamp socket, complete with 6-volt, 2-candle power tungsten bulb.-----\$1.25

No. 638-S Same as No. 637-S, without the lamp bulb.-----1.00

No. 650-S Lamp has jumped into immediate popularity on account of its many uses. It can be attached to the door of the car and will light the step when the door is open, and acts as a tonneau lamp when the door is closed. It can be placed up above in the touring top for a canopy lamp. It can be used as a cowl dash lamp for it can be screwed up under the sloping dash and the light turned to any angle.

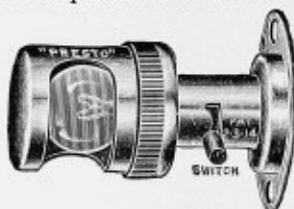
Dash lamps are made in double and single contact; if not specified double contact will be shipped.



No. 612-S Crook Neck Dash Lamp for Fords  
Length from Dash to bulb center  $3\frac{1}{2}$ -inches  
Net weight 3 oz.

No. 612-S Crook neck 45-degree angle Dash or Gauge Lamp, full nickel-plate, with self contained turn switch. Bayonet type lamp socket complete with 6-volt, 2-candle power tungsten bulb.-----\$1.25

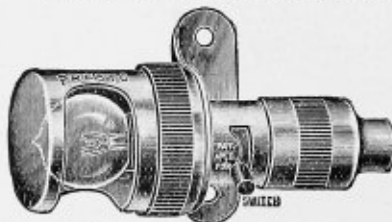
No. 613-S Same as No. 612-S, without the lamp bulb.-----1.00



No. 647-S "Bull Pup" Lamp  
Length from Dash to bulb center 2 inches  
Net weight  $2\frac{1}{4}$  oz.

No. 647 "Bull Pup" Dash Lamp is a smaller edition of the "Bull Dog" style. See illustrations. Full nickel-plate, with self contained switch, bayonet type lamp socket and 6-volt, 2-can. power tungsten bulb.-----\$1.15

No. 648-S Same as No. 647-S without the lamp bulb.-----90



No. 650-S Cowl Dash or Step Light  
Length over all 3-inches.  
Net weight  $2\frac{1}{4}$  oz.

No. 650-S Cowl Dash or Step Light, complete with 6-volt, 4-candle power tungsten bulb.-----\$1.25

No. 651-S Same as No. 650-S, without the lamp bulb.-----1.00

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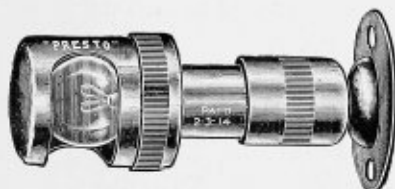
# Presto DASH and INSTRUMENT BOARD Lamps



No. 610 Straight Neck Lamp  
Length from Dash to bulb center  $3\frac{3}{4}$ -inches  
Net weight  $2\frac{1}{2}$  oz.

No. 610 Dash or Gauge Lamp, straight neck, full nickel-plate. Bayonet type lamp socket, complete with 6-volt, 2-candle power tungsten bulb.....\$1.00

No. 611 Same as No. 610, but without the bulb......75



No. 618 "Bull Dog" Lamp  
Length from Dash to bulb center  $2\frac{1}{2}$ -inches  
Net weight  $2\frac{1}{4}$  oz.

No. 618 "Bull Dog" Dash is everything the name implies. Strong, heavy, short and chunky and built for service. Full nickel plate, with bayonet type lamp socket and 6-volt, two candle power tungsten bulb.....\$1.00

No. 619 Same as No. 618, without the bulb......75



No. 640 Metal Dash Lamp  
Length from Dash to bulb center  $\frac{3}{4}$ -inches  
Net weight  $2\frac{3}{4}$  oz.

No. 640 Dash or Instrument Board Lamp. Fitted for metal dash. A close compact lamp for countersunk clocks, speedometers, vibrator, etc. Complete with six volt, 2-candle power tungsten bulb.....\$1.00

No. 641 Same as No. 640, without the lamp bulb......75

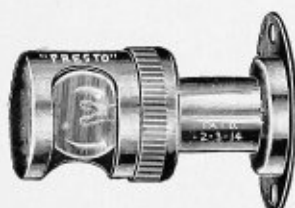
Dash lamps are made in double and single contact; if not specified double contact will be shipped.



No. 612 Crook Neck Dash Lamp  
Length from Dash to bulb center  $3\frac{1}{2}$ -inches  
Net weight  $2\frac{3}{4}$  oz.

No. 612 Crook Neck 45-degree angle Dash or Gauge Lamp, full nickel plate. Bayonet type lamp socket complete with 6-volt, 2-candle power tungsten bulb.....\$1.00

No. 613 Same as No. 612, but without the bulb......75



No. 647 "Bull Pup" Lamp  
Length from Dash to bulb center 2-inches  
Net weight 2 oz.

No. 647 "Bull Pup" Dash Lamp is a smaller edition of the "Bull Dog" style. See illustrations. Full nickel-plate, with bayonet type lamp socket, and 6-volt, 2-candle power tungsten bulb......90

No. 648 Same as No. 647, but without the bulb......65



No. 645 Wood Dash Lamp  
Length from Dash to bulb center 1-inch  
Net weight  $1\frac{1}{2}$  oz.

No. 645 Dash or Instrument Board Lamp. Fitted with oval flange for wood dash. A close compact lamp for countersunk clocks, speedometers, vibrators, etc. Complete with 6-volt, 2-candle power tungsten bulb......90

No. 646 Same as No. 645, without the lamp bulb......65

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Anchor" CAPS and BAYONET TYPE Plugs



No. 1

5/8-inch plug cap



No. 100

3/4-inch socket cap



No. 101

3/4-inch socket cap



No. 102

3/4-inch socket cap

No. 1	Rubber Cap 5/8-inch diameter to fit on rubber plugs.....	4c
No. 100	Rubber Cap 3/4-inch diameter to fit over wires on lamp sockets.....	4c
No. 101	Metal Cap 3/4-inch diameter to fit over wires on lamp sockets .....	15c
No. 102	Metal Cap 3/4-in. diameter to fit over wires on lamp socket, with 1/8-in. pipe thread.....	15c

For uses of No. 100-101-102 caps see illustrations No. 41-42-44-61-62-64.

## BAYONET TYPE PLUGS



No. 2

5/8 threaded plug  
screw terminals



No. 4

Combination  
No. 1 & 2



No. 4

with parts  
separated



No. 9

with parts  
separated



No. 9

5/8-in. plug with  
metal cap



No. 10

5/8-in. plug with  
screw terminals

No. 2	5/8-Inch Rubber Plug threaded for cap, screw terminals.....	18c
No. 4	5/8-Inch Rubber Plug with screw terminals and rubber cap.....	22c
No. 9	5/8-Inch Rubber Plug screw terminals, with metal cap.....	22c
No. 10	5/8-Inch Rubber Plug with screw terminals and without cap.....	15c



No. 7 Extension Plug Socket



No. 9-C Single Contact Converter Plug

No. 7	Extension Plug Socket, switch type.....	50c
No. 9-C	Bayonet Type Plug for converting two wire to single contact system-without wires.....	27c
No. 9-C	With six inch wires.....	45c

ALL PLUGS ARE MADE IN BOTH SINGLE AND DOUBLE CONTACT.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Anchor" DOUBLE END LAMP SOCKETS and Connectors



No. 5



No. 85



No. 95



No. 105

No. 5	Double End Socket for head and side lights.....	26c
No. 85	Double End Socket, with No. 10 plain plug.....	41c
No. 95	Double End Socket, with No. 9 metal cap.....	48c
No. 105	Double End Socket, with No. 4 rubber cap plug.....	48c

FURNISHED IN BOTH SINGLE AND DOUBLE CONTACT.



No. 6



No. 86



No. 96



No. 106

No. 6	Switch Type Tail Light double end socket.....	28c
No. 86	Switch Type Tail Light socket, with No. 10 plain plug.....	43c
No. 96	Switch Type Tail Light socket, with No. 9 metal cap plug.....	50c
No. 106	Switch Type Tail Light socket, with No. 4 rubber cap plug.....	50c

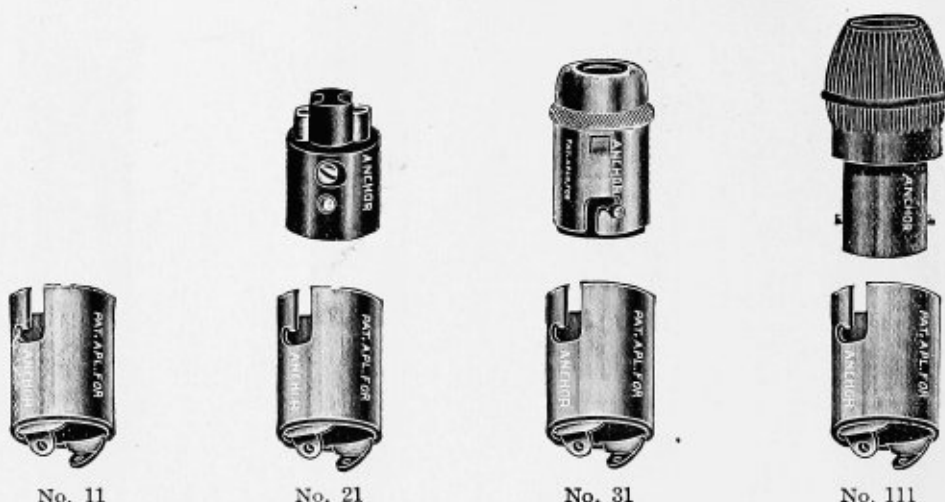
FURNISHED IN DOUBLE CONTACT ONLY. BULBS NOT FURNISHED WITH SOCKETS.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Anchor" BAYONET TYPE LAMP and PLUG Soldered TERMINAL Sockets



No. 11	Soldered Terminal Lamp and Plug Socket.....	15c
No. 21	Soldered Terminal Socket, with No. 10 plain rubber plug.....	30c
No. 31	Soldered Terminal Socket, with No. 9 metal cap plug.....	37c
No. 111	Soldered Terminal Socket, with No. 4 rubber cap plug.....	37c

This socket is furnished double contact only, and is only 15-16ths inches in length.



No. 12	Soldered Terminal Lamp and Plug Socket.....	18c
No. 22	Soldered Terminal Socket, with No. 10 plain rubber plug.....	33c
No. 32	Soldered Terminal Socket, with No. 9 metal cap plug.....	40c
No. 112	Soldered Terminal Socket, with No. 4 rubber cap plug.....	40c

This socket furnished in both single and double contact, and is 1 1/8-in. in length.

**BULBS NOT FURNISHED WITH SOCKETS**

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Anchor" Bayonet Type Lamp and Plug Side and End Lead Screw Terminals Sockets



No. 13



No. 23



No. 33



No. 113

## SIDE LEAD TERMINALS

No. 13	Screw Terminal Lamp or Plug Socket.....	22c
No. 23	Screw Terminal Socket, with No. 10 plain rubber plug.....	37c
No. 33	Screw Terminal Socket, with No. 9 metal cap plug.....	45c
No. 113	Screw Terminal Socket, with No. 4 rubber cap plug.....	45c

This socket is  $1\frac{1}{8}$ -inches in length



No. 14



No. 24



No. 34



No. 114

## END LEAD TERMINALS

No. 14	Screw Terminal Lamp or Plug Socket.....	22c
No. 24	Screw Terminal Socket, with No. 10 plain rubber plug.....	37c
No. 34	Screw Terminal Socket, with No. 9 metal cap plug.....	45c
No. 114	Screw Terminal Socket, with No. 4 rubber cap plug.....	45c

This socket is  $1\frac{1}{8}$ -inches in length.

These sockets furnished in both single and double contact.

**BULBS NOT FURNISHED WITH SOCKETS**

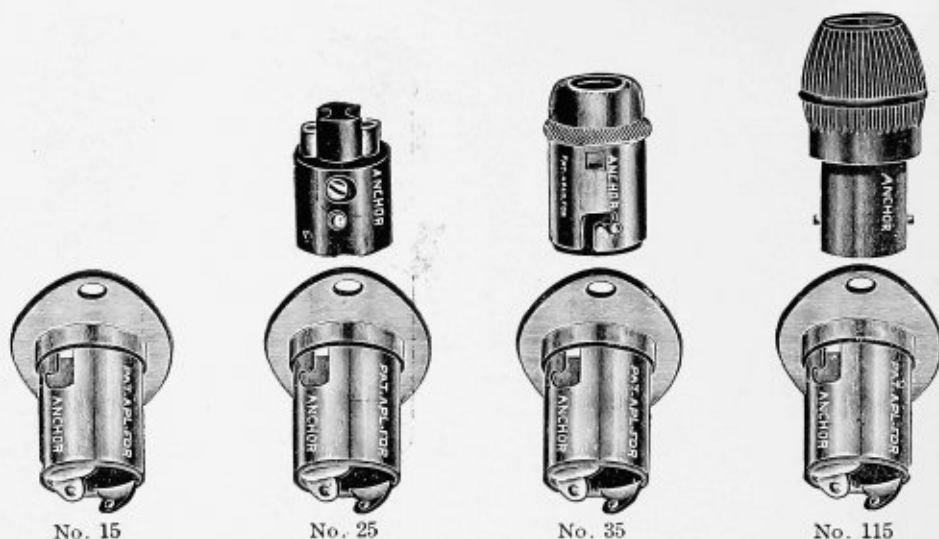
Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.



ASCH AND COMPANY  
INCORPORATED

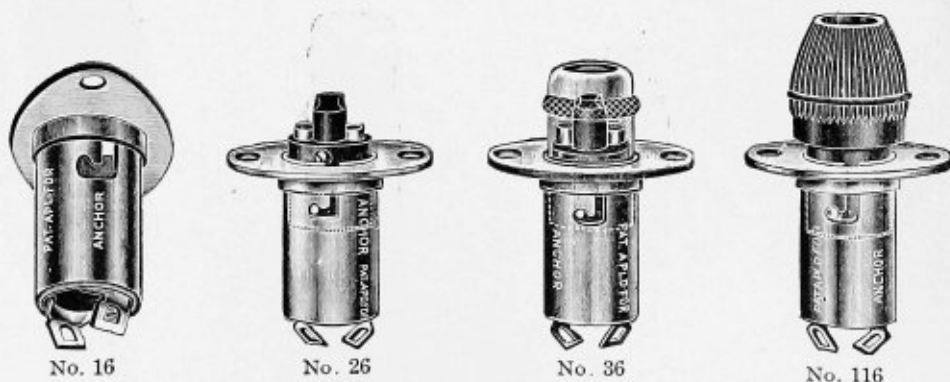
NEW YORK

# "Anchor" BAYONET TYPE DASH and PLUG Soldered TERMINAL Sockets



No. 15	Soldered Terminal Dash and Plug Socket.....	18c
No. 25	Soldered Terminal Socket, with No. 10 plain rubber plug.....	33c
No. 35	Soldered Terminal Socket, with No. 9 metal cap plug.....	40c
No. 115	Soldered Terminal Socket, with No. 4 rubber cap plug.....	40c

This socket furnished in double contact only, and is only 15-16ths in length.



No. 16	Soldered Terminal Dash and Plug Socket.....	22c
No. 26	Soldered Terminal Socket, with No. 10 plain rubber plug.....	37c
No. 36	Soldered Terminal Socket, with No. 9 metal cap plug.....	45c
No. 116	Soldered Terminal Socket, with No. 4 rubber cap plug.....	45c

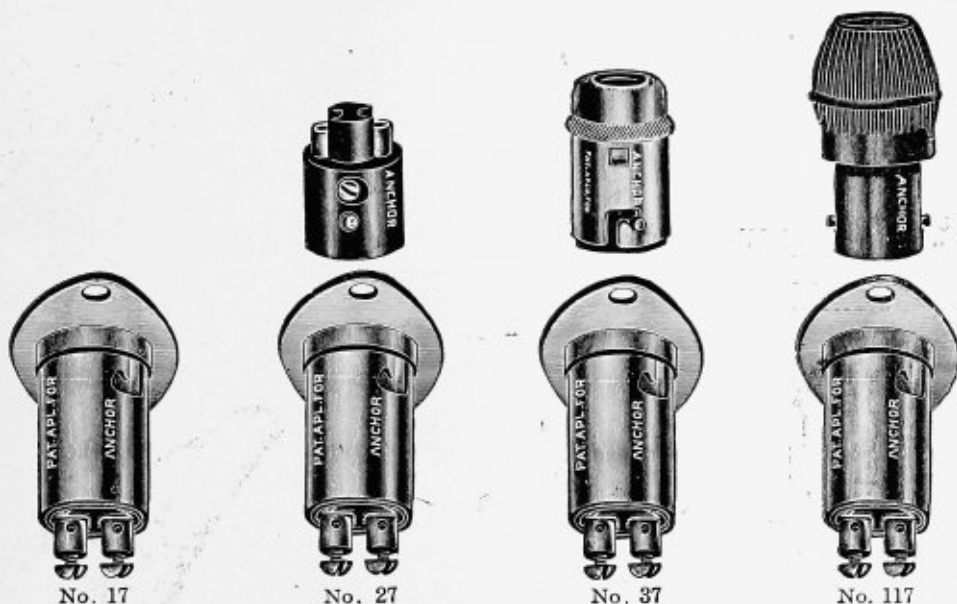
This socket is furnished in both single and double contact, and is 1½-inches in length.



ASCH AND COMPANY  
INCORPORATED

NEW YORK

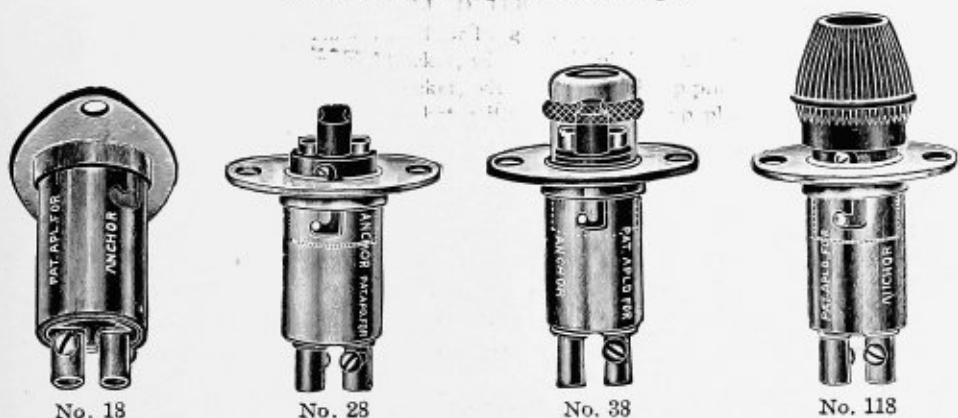
# "Anchor" Bayonet Type Lamp and Plug Side and End Lead Screw Terminals Sockets



## SIDE LEAD TERMINALS

No. 17	Side Lead Screw Terminal Dash or Plug Socket.....	26c
No. 27	Side Lead Screw Terminal Socket, with No. 10 plain rubber plug.....	41c
No. 37	Side Lead Screw Terminal Socket, with No. 9 metal cap plug.....	48c
No. 117	Side Lead Screw Terminal Socket, with No. 4 rubber cap plug.....	48c

This socket is  $1\frac{1}{8}$ -inches in length



## END LEAD TERMINALS

No. 18	End Lead Screw Terminal Dash or Plug Socket.....	26c
No. 28	End Lead Screw Terminal Socket, with No. 10 plain rubber plug.....	41c
No. 38	End Lead Screw Terminal Socket, with No. 9 metal cap plug.....	48c
No. 118	End Lead Screw Terminal Socket, with No. 4 rubber cap plug.....	48c

This socket is  $1\frac{1}{8}$ -inches in length

These sockets furnished in both single and double contact.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Anchor" BAYONET TYPE DASH and PLUG Sockets

## SWITCH TYPE



No. 67



No. 68



No. 77

No. 67	Side Lead Screw Terminal Switch Type Dash Socket.....	26c
No. 68	End Lead Screw Terminal Switch Type Dash Socket.....	26c
No. 77	Inside Lead 10-Degree Angle Dash Lamp.....	50c

No. 67 and 68 are 1 1/8 inches long, No. 77 is 2-inches long.

THESE SOCKETS FURNISHED IN SINGLE CONTACT ONLY

## METAL DASH SOCKETS



No. 121 & 122



No. 123



No. 124

No. 121	Soldered Terminal 3/8-Inch Long Metal Dash Socket.....	33c
No. 122	Soldered Terminal 1 1/8-Inch Long Metal Dash Socket.....	37c
No. 123	Side Lead 1 1/8-Inch Long Metal Dash Socket.....	40c
No. 124	End Lead 1 1/8-Inch Long Metal Dash Socket.....	40c

These sockets excepting No. 121 furnished in single or double contact. No. 121 double only.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Anchor" Bayonet Type Lamp and Plug Sockets With Caps



No. 41



No. 42



No. 44

No. 41	Socket No. 11, with composition rubber cap No. 100, soldered terminals.....	18c
No. 42	Socket No. 12, with composition rubber cap No. 100, soldered terminals.....	22c
No. 44	Socket No. 14, with screw terminals and composition rubber cap.....	28c



No. 61



No. 62



No. 64

No. 61	Socket No. 11, with metal cap No. 101.....	30c
No. 62	Socket No. 12, with metal cap No. 101.....	33c
No. 64	Socket No. 14, with screw terminals and metal cap No. 101.....	37c

These sockets excepting No. 41 and 61 furnished in both single and double contact. No. 41 and 61 double contact only. **Bulbs not furnished with sockets.**

ASCH AND COMPANY  
INCORPORATED

NEW YORK

**"Anchor" LAMP SOCKETS WITH Lead Wires**

No.	Description	Price
No. 19, 19 $\frac{1}{4}$ & 19 $\frac{1}{2}$	No. 20 & 20 $\frac{1}{2}$	
No. 19	Miniature Fibre Socket, $\frac{1}{2}$ x $\frac{3}{4}$ and 7-inch wires	11c
No. 19 $\frac{1}{4}$	Candelabra Fibre Socket, $\frac{5}{8}$ x 1-inch and 10-inch wires	12c
No. 19 $\frac{1}{2}$	Candelabra Fibre Socket, $\frac{3}{4}$ x 1 $\frac{1}{4}$ -inch and 10-wires	15c
No. 20	Lamp Socket, soldered terminals and 10-inch wires	35c
No. 20 $\frac{1}{2}$	Same as No. 20, with screw terminals and 10-inch wires	33c
No. 72	Lamp Socket, soldered terminals, with composition cap and 10-inch wires	33c
No. 74	Same as No. 72, with screw terminals and 10-inch wires	37c
No. 82	Lamp Socket, soldered terminals, metal cap and 10-inch wires	45c
No. 84	Same as No. 82, with screw terminals and 10-inch wires	48c

**ELECTRIC LAMP CONVERTERS**

No. 125



No. 134



No. 144

No. 125	Side and Tail Light Converter, consisting of No. 5 socket threaded and two adjustable nuts	45c
No. 134	Side and Tail Light Converter, consisting of No. 14 socket, No. 101 metal cap threaded and two nuts	56c
No. 144	Same as No. 134, with 10-inches of weather-proof cord	67c

All sockets on this page furnished in single or double contact.

ASCH AND COMPANY  
INCORPORATED

NEW YORK

# "Anchor" PLUGS SOCKETS and Converters

FOR FORD HEAD, SIDE and TAIL LIGHTS



No. 5



No. 6



No. 135

- No. 5 Double End Connector for **Ford** side lights.....26c  
 No. 6 Double End Connector, switch type for **Ford** tail lights.....28c  
 No. 135 Double End Focusing Socket for **Ford** head lights.....45c



No. 125



No. 144

- No. 125 Double End Converting Socket, with adjustable nuts for **Ford** side and tail lights.....45c  
 No. 144 Converting Socket for **Ford** side and tail lights, with adjustable nuts and 10-in. wires.....67c



No. 4



No. 8



No. 55

- No. 4 Rubber Plug and Cap and screw terminals for wires.....22c  
 No. 8 Elbow Rubber Plug, for **FORD** head lights with cap and screw terminals for wires.....45c  
 No. 55 Armored Lamp Extension Wires, with metal cap plug on one end, open wire on other, length 16-inches for all **FORD** lamps.....70c

ALL THESE FURNISHED IN BOTH SINGLE and DOUBLE CONTACT EXCEPTING No 6  
**BULBS NOT FURNISHED WITH SOCKETS**

# "Anchor" ARMORED LAMP Extensions



No. 51

No. 51 flexible brass armored tube extension, with  $\frac{5}{8}$ -inch Anchor Bayonet Type Plugs.

10-inches over all	86c
13 " " "	93c
16 " " "	\$1.00



No. 52

No. 52 duplex flexible cable extension, with  $\frac{5}{8}$ -inch Anchor Bayonet Type Plugs.

10-inches over all	63c
13 " " "	67c
16 " " "	70c



No. 53

No. 53 flexible brass armored tube extension, with  $\frac{5}{8}$ -inch Anchor Bayonet Type Plug on one end and Anchor Bayonet Type Lamp Socket on the other.

10-inches over all	97c
13 " " "	\$1.05
16 " " "	1.12



No. 54

No. 54 same as No. 53, with two adjustable nuts for converting oil or gas lights to electricity without the use of solder.

10-inches over all	\$1.16
13 " " "	1.23
16 " " "	1.30



No. 55

No. 55 Same as No. 51, but with only one plug. The other end is open and wire extends 6-inches beyond the armor.

10-inches over all	63c
13 " " "	67c
16 " " "	70c

All of these extensions excepting No. 52 furnished in both single and double contact.

BULBS NOT FURNISHED WITH EXTENSIONS

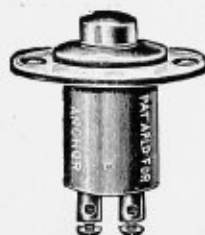
# Anchor Adapters and Switches



No. 310



No. 312



No. 400

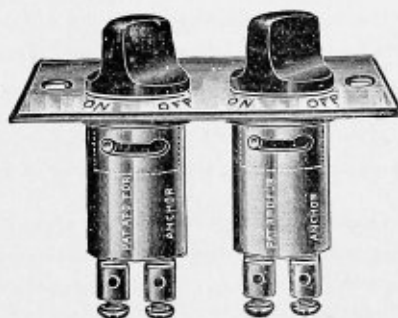
## LAMP ADAPTERS

## FLOOR SWITCH

- No. 310 Edi-Swan to Candelabra Adapter, used to change a bayonet type lamp socket to candelabra screw base.....15c
- No. 312 Candelabra to Miniature Adapter, used to change a candelabra screw base to a Miniature screw base.....4c
- No. 400 Floor Push Horn Switch, used to blow a horn from the floor or door of the car, strong and durable.....50c



No. 417



No. 417-2

## DASH BOARD LIGHT SWITCHES

These switches are made in single as well as two, three and four gangs. Used on Ford lighting outfits and for other head, side and tail lights.

- No. 417 Dash Turn Button Light Switch.....50c
- No. 417-2 Gang as illustrated.....\$1.00
- No. 417-3 Gang.....1.50
- No. 417-4 Gang.....2.00

FURNISHED IN BOTH SINGLE AND DOUBLE CONTACT.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.



**Gil-Bo ELECTRIC LAMP Adapters**

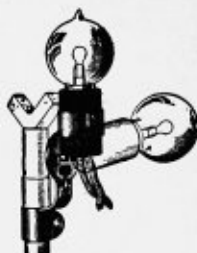
MADE FOR BOTH OIL AND GAS BURNERS  
WITH BAYONET TYPE and CANDELABRA BASE LAMP SOCKETS



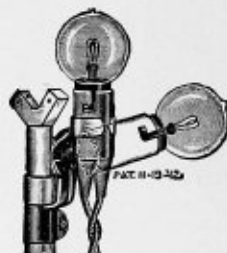
No. 301



No. 302



No. 303



No. 304

This is the only attachment which permits the use of oil or gas burners without removing either electric bulb or bracket.

Made of spring brass, highly polished and nickel-plated, strong and durable---provided with notches which hold electric lamp securely, either in a vertical or horizontal position.

When in use the electric bulb is held in the most advantageous position and when not in use the bulb is turned entirely out of the way, so that there is no danger of flame from oil or gas burner breaking the electric bulb. Dotted line in sketch shows position lamp bracket assumes when the oil or gas burner is in use.

More desirable than STRAIGHT electric lamps are oil and gas lamps thus converted, because they provide a another source of light supply for emergency use.

**Other advantages are--**They make it possible to convert instantly from oil or gas to electric light or vice versa without removing either bulb or burner. They are quickly and easily installed. The electric bulb may be easily raised or lowered to suit any style burner.

**-PRICES-**

No. 301 Gil-Bo Adapter, for oil burner, with fibre candelabra socket and 10-inches weather-proof cord.....	30c
No. 302 Gil-Bo Adapter, for oil burner, equipped with Anchor lamp socket No. 11, with 10-inches weather-proof cord.....	50c
No. 303 Gil-Bo Adapter, for gas burner, with fibre candelabra socket and 10-inches weather-proof cord.....	30c
No. 304 Gil-Bo Adapter, for gas burner, equipped with Anchor lamp socket No. 11, with 10-inches weather-proof cord.....	50c

Furnished in both single and double contact.

Manufactured by METAL SPECIALTIES MFG. CO., Chicago, Ill.

# A COMPLETE ASSORTMENT OF MAZDA AUTO LAMPS FOR \$15.93



**I**F you are in the garage or auto supply business you should handle auto lamps. Every car that you serve with supplies occasionally needs MAZDA lamps. Many purchasers have undoubtedly bought these lamps at other supply stores because you have not carried them. This takes not only the profit in the lamp business away from you, but the business in tires, gas, oil and other supplies. You can't hold your trade without MAZDA lamps—the lamps of known quality, specified by over 100 makes of American-made cars.

\$15.93 provides you with display cabinet and complete stock of 100 Federal MAZDA automobile lamps. This stock enables you to make renewals on practically all types of American-made cars.

Your profit on this investment even at our list prices will be more than 50%. At the prevailing retail prices your profit will be even greater.

The stock offered you at the above low price is carefully selected from the wide range of Federal MAZDA lamps. It includes ten of the widely talked-of MAZDA C headlight lamps, which are selling at a premium on the market today. These lamps are gas-filled and give whiter and brighter light on a lower consumption of current than other headlight lamps. All the lamps in this stock are listed on the second page succeeding this one, under the heading *Federal MAZDA Auto Lamps Regularly Carried in Stock*.

The sales cabinet itself is a convenient counter display and container for the lamp stock. It allows you to give the car owner the correct lamps for his automobile. You can keep your lamps safely and neatly in this cabinet, which at the same time is selling lamps for you.

Each cabinet is supplied with price list, order cards and the National Guide to Proper Lamps for 1913, '14, '15 and '16 automobiles. Complete stock totals 100 lamps. Every one is a quick seller. Car owners gladly pay the list price or more for lamp renewals.

By purchasing a cabinet you will be further entitled to 35% discount from our standard list prices on any automobile lamps you purchase in carton quantities.

# FEDERAL MAZDA AUTO LAMPS

## NATIONAL QUALITY

Federal MAZDA auto lamps are dependable and durable. They will give long service and stay bright over rough roads and smooth. They are powerfully brilliant and yet consume but little current. Made carefully and made in America by skilled workmen, who test them to an approved standard at every stage of their manufacture.

These auto lamps are made in various sizes, styles and voltages to fit every auto lighting need for any gasoline or electric automobile.

Recent additions to our line are high efficiency MAZDA C, non-vacuum headlight lamps of 6-8, 12-16, and 18-24 volt ratings. These lamps are an advance over older types of MAZDA headlights, both in regard to the amount of light produced for a given consumption of current, and in the quality of light which is clearer and whiter.

In ordering either auto lamps or flashlight lamps, please specify exact voltage at which lamps are to be burned. Specify type of base desired, whether single or double contact bayonet base, candelabra base, miniature base or some other special type of base.

Give the rating of watts, amperes and candlepower as shown in following price schedules.

Specify bulb size as shown in the following price schedules.



**Auto Head-light**  
G-16 1/2 bulb  
(1/2 actual size)



**Auto Head-light**  
G-12 bulb  
(1/2 actual size)



**Auto Side-light**  
G-8 bulb  
(1/2 actual size)



**Auto  
Rear and Speedometer**  
G-6 bulb  
(1/2 actual size)



**Electric Vehicle  
Rear**  
G-10 bulb  
(1/2 actual size)



**Electric  
Vehicle Head-light**  
G-12 bulb  
(1/2 actual size)



**Electric  
Vehicle Head-light**  
G-16 1/2 bulb  
(1/2 actual size)



**Dome Lamp**  
R-8 Bulb  
(1/2 actual size)



**MAZDA C Headlight**  
G-12 Bulb  
(1/2 actual size)

Lamps on these schedules are fitted with regular auto lamp bases (Double or Single Contact Bayonet) but can be supplied with Candelabra Screw Base without extra charge when specially ordered.

### Federal MAZDA Auto Lamps Regularly Carried in Stock

These lamps, with the exception of the G-16½ bulb, 9 volt headlight lamp, are particularly designed for 3 cell (lead type) storage battery—generator lighting systems, the lighting voltage being 6-8 volts.

Description	Volts†	Amperes	Approximate Candle Power	Type and Size Bulb	Diameter of Bulb Inches	Maximum Over All Length Inches	Unit Package Quantity	List Price Clear**
Rear and Meter (two in series)	3-4	.84	2	G-6	¾	1 9-16	10	\$0.21
Rear and Meter	6-8	.42	2	G-6	¾	1 9-16	10	.21
Side	6-8	.84	4	G-8	1	1 7/8	10	.21
Headlight, MAZDA B	6-8	2.00	12	G-12	1 ½	2 ½	5	.27
Headlight, MAZDA B	6-8	2.50	15	G-16½	2 1-16	3 ½	5	.27
Headlight, MAZDA C	6-8	2.50	21	G-12	1 ½	2 ½	5	.35
Headlight, MAZDA B	6-7	3.50	21	G-16½	2 1-16	3 ½	5	.30
Headlight, MAZDA B	9	2.00	15	G-16½	2 1-16	3 ½	5	.27

(For 1915 and later model Ford cars—to be burned two in series.)

Lamps in the above schedule are contained in the auto lamp cabinet, described on the second preceding page.

### Other Federal MAZDA Auto Lamps

The following lamps are not as generally used as the lamps listed above and therefore are not as regularly carried in stock. Any of these lamps if not in stock will be supplied promptly on order.

#### FOR 3 CELL (LEAD TYPE) STORAGE BATTERY—GENERATOR LIGHTING SYSTEMS—6-8 VOLTS

Rear and Meter	6-8	.84	4	G-6	¾	1 9-16	10	\$0.24
Dome	6-8	.84	4	R-8	1 ½	1 ½	10	.32
Dome	6-8	.84	4	T-5	5/8	1 ½	10	.60
Side	6-8	1.25	6	G-8	1	1 7/8	10	.24
Side	6-8	1.25	6	G-10	1 ¼	2 ¼	10	.24
Side (Focusing)	6-8	1.00	6	G-10	1 ¼	2 ¼	10	.30
Headlight, MAZDA B	6-8	1.50	9	G-10	1 ¼	2 ¼	5	.27
Headlight, MAZDA B	6-8	2.00	12	G-16½	2 1-16	3 ½	5	.27
Headlight, MAZDA B	6-8	3.00	18	G-16½	2 1-16	3 ½	5	.27

R-8 Bulb Dome Lamp has Candelabra Screw Base. T-5 Bulb Dome Lamp has Special Double Cap Base.

#### FOR 6 CELL (LEAD TYPE) STORAGE BATTERY—GENERATOR LIGHTING SYSTEMS—12-16 VOLTS

Rear and Meter (two in series)	6-8	.42	2	G-6	¾	1 9-16	10	\$0.21
Rear and Meter	12-16	.26	2	G-6	¾	1 9-16	10	.24
Side	12-16	.42	4	G-8	1	1 7/8	10	.24
Headlight, MAZDA B	12-16	1.00	15	G-12	1 ½	2 ½	5	.30
Headlight, MAZDA B	12-16	1.00	15	G-16½	2 1-16	3 ½	5	.30
Headlight, MAZDA B	12-16	1.25	18	G-16½	2 1-16	3 ½	5	.30
Headlight, MAZDA B	12-16	1.50	21	G-16½	2 1-16	3 ½	5	.30

#### FOR 9 CELL (LEAD TYPE) STORAGE BATTERY—GENERATOR LIGHTING SYSTEMS—18-24 VOLTS

Rear and Meter (two in series)	10	.26	2	G-6	¾	1 9-16	10	\$0.28
Rear and Meter	18-24	.17	2	G-6	¾	1 9-16	10	.35
Side	18-24	.26	4	G-8	1	1 7/8	10	.40
Headlight, MAZDA B	18-24	1.00	21	G-16½	2 1-16	3 ½	5	.50

### Federal MAZDA C Headlight Lamps

MAZDA C headlights are the newest development in automobile lamps. These lamps are gas-filled and are more efficient and produce whiter light than MAZDA B headlights. They may be used in place of MAZDA B lamps.

Headlight, MAZDA C	6-8	1.50	12	G-8	1	1 7/8	10	\$0.40
Headlight, MAZDA C	6-8	2.50	21	G-12	1 ½	2 ½	5	.35
Headlight, MAZDA C	6-8	3.00	24	G-12	1 ½	2 ½	5	.50
Headlight, MAZDA C	6-8	4.00	36	G-16½	2 1-16	3 ½	5	.75
Headlight, MAZDA C	12-16	1.50	24	G-12	1 ½	2 ½	5	.37
Headlight, MAZDA C	12-16	2.00	40	G-16½	2 1-16	3 ½	5	.75
Headlight, MAZDA C	18-24	1.00	24	G-12	1 ½	2 ½	5	.75
Headlight, MAZDA C	9	2.00	21	G-12	1 ½	2 ½	5	.35

(For 1915 and later model Ford cars—to be burned two in series.)

### Federal MAZDA Lamps for Use On Electric Vehicles

For Service Upon Lead and Alkaline Type Electric Vehicle Storage Battery Circuits

Description	Watts	Volts†	Type and Size Bulb	Diameter of Bulb Inches	Maximum Over all Length Inches	Unit Package Quantity	List Price Clear **
Rear	8	30-34	G-10	1 ¼	2 ¼	10	\$0.60
Side	15	40-44	G-12	1 ½	2 ½	5	.60
Headlight	25	60-64	G-16½	2 1-16	3 ½	5	.60
		80-84					

†If fitted with Medium Screw Base or with Medium Bayonet Base, \$0.05 list additional.

\*The lamp voltages indicate that the lamps have been designed for operation on automobile and electric vehicle lighting systems whose voltage varies between the limits shown.

†These lamps are labelled on the base with their ratings, Volts (V), Amperes (A), and Candle Power (C).

\*\*Prices Effective October 1, 1915, and Subject to Change Without Notice.

# Federal MAZDA Flashlight Lamps

## NATIONAL QUALITY

Long service from batteries and clean, pervading light are obtained through the use of Federal MAZDA Flashlight and General Battery Lamps which produce maximum candlepower for minimum current. They are made in various sizes and voltages to fit any flashlight or dry battery hand lantern and are adapted to every battery lighting requirement. These lamps are rapidly coming into use for all classes of service where portable, handy lights are desired.



Flashlight  
G-5½ Bulb  
Clear



Flashlight  
G-4½ Bulb  
Clear



Flashlight  
G-3½ Bulb  
Clear



Flashlight  
F. E. 3¼ Bulb  
Opal Back

Prices Effective June 1, 1915, and Subject to Change Without Notice

Description	For Use With Flashlight Batteries as Listed	Volts	Amperes	Type and Size Bulb	Diameter Bulb Inches	Maximum Over All Length Inches	Base	Unit Pkg. Quantity	List Price Clear
Flashlight... Clear... Tipless...	2 cells, tubular type.....	2.7	.35	G-3½	¼	1½	Min.	10	\$0.13
	3 cells, case or tubular type.....	3.8							
	2 cells, tubular type.....	2.9							
	3 cells, case or tubular type.....	3.8	.35	G-4½	⅜	1¾	Min.	10	.13
	3 cells, case or tubular type.....	4.0							
Flashlight... Opal Back or Clear, Tipless	5 cells, tubular type.....	6.2	.35	G-5½	½	1⅝	Min.	10	.13
	2 cells, case type.....	2.5	.35	FE-3¾	½	¾	Sgl. Cont. Bay. Min.	10	.23
	3 cells, case or tubular type.....	3.8							
	2 cells, case type.....	2.5							
	2 cells, case type.....	2.5	.25	FE-4¼	½	1½	Min.	10	.13

All flashlights listed above of .35 amperes may be obtained at .30 amperes without extra charge.

Special Flashlight Lamps of odd voltages are not commonly carried in stock, but may be obtained as follows, without extra charge, all flashlight lamps above listed at 2.5, 2.7 and 2.9 volt may be obtained in voltages from 2.5 to 3.0; lamps above listed at 3.8 volts may be obtained in voltages from 3.5 to 4.0; lamps above listed at 6.2 volts may be obtained in voltages from 5.5 to 6.2 volts. When special lamps are ordered, exact voltages should be specified.

### FEDERAL MAZDA LAMPS FOR STANDARD DRY BATTERY SERVICE

These lamps are especially in demand for use in dry battery hand lanterns

Description	Volts	Amperes	Approximate Candle Power	Type and Size Bulb	Diameter Bulb Inches	Maximum Over All Length Inches	Base	Unit Package Quantity	List Price Clear
For 1 cell For 2 cells	*1.5 **3.0	0.6 0.42 & 0.8	1 1 & 2	†G-5½ G-5½	½	1⅝	Min.	10	\$0.15

\*Nominal volts. Actual volts, 1.35. †This lamp may be supplied at 0.7 amperes or in G-4½ bulb without extra charge.  
\*\*Nominal volts. Actual volts, 2.70.



# International Tire Carriers

## EASY SELLERS FOR 4 BIG REASONS



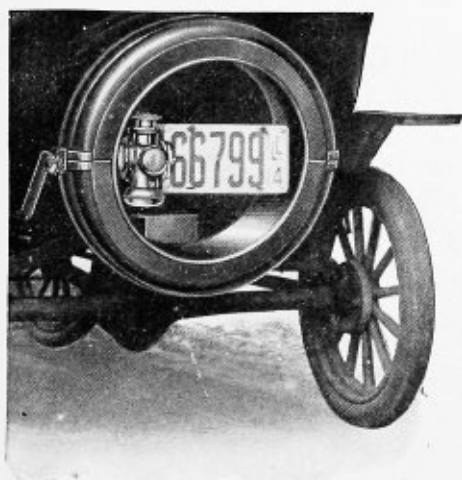
VICTOR on running board

*Safety—Convenience  
Appearance — Price*

### FOR FORD AND OTHER CARS

International Tire Carriers strike a popular demand with owners of every kind of car, opening a tremendous field for profits and sales for live dealers everywhere. Every extra tire in your territory should be protected by an International Carrier—and you should sell the Carrier.

## Prevent Theft and Deterioration



The right way to carry extra tires

Every International Tire Carrier is equipped with secure locks that insure owners against tire loss. Victor Carriers entirely encase one or two tires. Protects against theft and deterioration.

Fits on the Ford where most convenient, never in the way, no extra load to carry. Built to fit the Ford Car.

The Most Practical Carrier for Ford Cars.



# Victor, Simplex and Duplex Tire Carriers for Ford Cars

HANDSOMELY FURNISHED IN BLACK ENAMEL



Showing three-piece construction of the Victor Carriers.

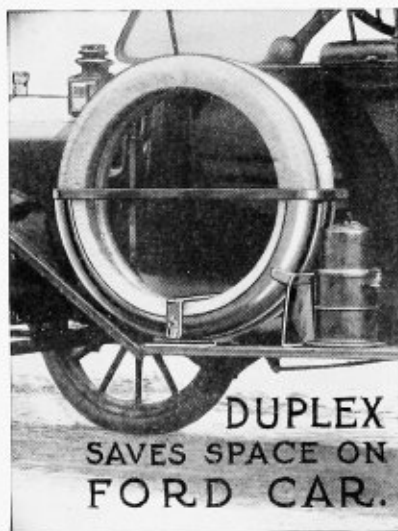
The Victor is made of Sheet Steel in three sections, formed to fit, completely enclose and protect the two tires as shown.

The Duplex is an abbreviated portion of the lower half section of the Victor with bars across the top and carries two tires.

The Simplex is similar to the Duplex and carries one tire.

**A Size and Price for everyone.**

**\$2.50 and up.**



Duplex on Running Board.

Every driver with an extra tire can afford an International Carrier. Protection and theft insurance alone pay for cost price in a week's use.

# BIG SALES ASSURED



Dealers are Making  
Big Money Handling  
**INTERNATIONAL  
TIRE CARRIERS**

Any of these carriers may be had for the running board or for the rear of the Car. The means of attaching to the rear being simple, sturdy and effective. With a brace and bit and a wrench any handy man can make the attachments to the car. Locks, directions and necessary bolts included with every Ford Carrier, all rear carriers provided to carry tail light and license number.

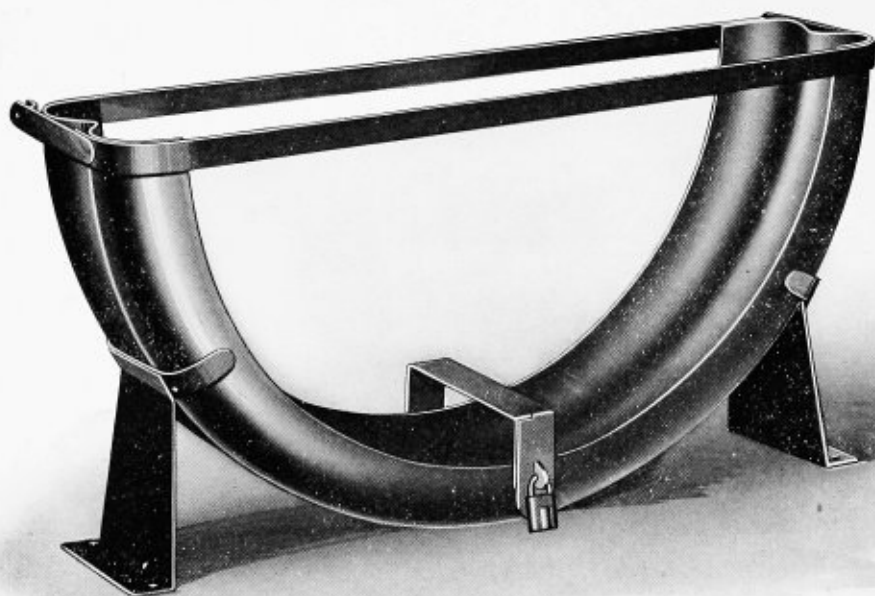
## LIST PRICES ON TIRE CARRIERS FOR THE FORD CAR

	For Running Board.		For Rear (with attachments) for Runabout or Touring Model	
	Simplex	Duplex	Simplex	Duplex
3-3½ x 30	\$2.50	\$4.00	\$3.50	\$5.00
3-3½ x 31 or 32	3.00	4.50	4.00	5.50
4 x 31 or 32	3.50	5.00	4.50	6.00

Victor, 3-Piece enclosed Carriers for 1 or 2, 3-3½ x 30 tires, \$10.00  
Victor, 3-Piece enclosed Carriers for 1 or 2 tires and Rims, 12.00

The above prices include all necessary attaching irons for the side or rear of the Ford Car, no blacksmithing required. Inflated tires require carriers one inch oversize. Give date of Touring model rear attachments are wanted for.

## Duplex Tire Carriers For Any Car



Green's Patents : Dec. 31, 1912, July 29, 1913.  
Other Patents Pending.

Duplex Tire Carriers are made to carry two tires as per this illustration.

### SIMPLEX TIRE CARRIERS

are of the same design as the Duplex, to carry one tire only.

### SIMPLEX AND DUPLEX TIRE AND DEMOUNTABLE RIM CARRIERS

HANDSOMELY FINISHED IN BLACK ENAMEL

For Running Board, Simplex for One Tire. Duplex for Two Tires

For tires, $3\frac{1}{2}$ x 31 or 32	\$3.00	\$4.50
" 4 x 32-33-34-35-36 or 37	3.50	5.50
" $4\frac{1}{2}$ x 34-35-36 or 37	4.00	6.00
" 5 x 34-35-36-37 or 38	4.50	6.50
" $5\frac{1}{2}$ x 36-37-38 or 40	5.00	7.00

One padlock and bolts to fasten Carrier to running board included.



# JUMBO SPARK PLUGS

ARE the logical result of more than two years of development. Probably no other spark plug on the market can boast of having dynamometer and road tests check up and determine the relative value of every detail of its design—the form and structure of its porcelains—the methods of rendering it gas-tight—rust-proof—heat-proof—self-cleaning. Service in all kinds of motors—Knights, poppet valve motors, high speed, high compression motors, aeroplane and marine motors, for long periods under the most difficult service conditions possible, has conclusively proven that Jumbo plugs are built to spark and keep on sparking under the gruelling tests of race track work, commercial service and pleasure touring.

We stand back of every Jumbo plug that leaves our factory with an unconditional 365-day guarantee—it is a guarantee that is absolutely free from evasions, quibbling and sidesteps—a guarantee that means precisely what it says; to wit, a new Jumbo plug for every Jumbo plug that goes out of business within one year from date of purchase.

The dealer who handles Jumbo Spark Plugs is pretty apt to be a good man to do business with. Better have him put in a set of Jumbos for you today.





# JUMBO SPARK PLUGS

A silhouette of an elephant walking to the right, integrated into the 'J' of the Jumbo Spark Plugs logo.

Jumbo Jiant

Jumbo Junior



Jumbo Regular

Jumbo Ford Special

Greatest in Strength

Biggest in Value





## Jumbo Jiant



Has proven itself the ideal plug for perfect service in the modern, high-speed, high-compression motor, as well as in all types of heavy-duty motors.

It is a radical departure from the old, accepted types of spark plug design—built to stay on the job, under all conditions of service, no matter how severe—and to give consistent, satisfactory ignition until it has rendered full value for the price.

Made in S. A. E., one-half inch, metric and S. A. E. long sizes.

PRICE \$1.25







## Jumbo Regular



Has no equal in spark plugdom; and only one superior, its big brother, Jumbo Giant. It has the big husky porcelain—sturdy, non-sooting, non-burnable electrodes—complete provision for free expansion under the terrific temperatures met in service.

You will find it absolutely reliable regardless of load and speed—a plug to swear *by*; not *at*.

Made in S. A. E., one-half inch and one-half inch long sizes.

PRICE \$1.00





## Jumbo Junior



Is designed with particular reference to the ignition requirements of the medium speed, medium compression type of motor.

It is designed right—built right—and gives you the sort of service you have a right to expect.

The same scientifically correct design, the same exact workmanship, put into the heavy-duty Jumbo Jiant, we give you also in this Jumbo Junior—the plug of no regrets.

Made in S. A. E., one-half inch and motorcycle special sizes.

PRICE 75c





## Jumbo Ford Special



Is designed for one purpose and one only — to give perfect ignition in the Ford motor.

The improved elongated shell reaches in through the water jacket, and brings the spark exactly where it will do the most good.

The porcelain is set far back in the shell and skirted to prevent sooting at the ends.

The shell electrodes are bent up in the middle so that oil must run *away* from the firing points. If you want your Ford to run as smoothly and economically as the big high-priced fellows, by all means use the Jumbo Ford Special.

PRICE 75c





Jumbo Jiant  
Buick Special



Jumbo Jiant  
Metric



Jumbo Regular  
Overland Special



Motorcycle  
Special  
S. A. E. Standard  
7/8"x18



Motorcycle  
Special  
Metric

## LEADING CARS USE THE FOLLOWING SIZES OF PLUGS:

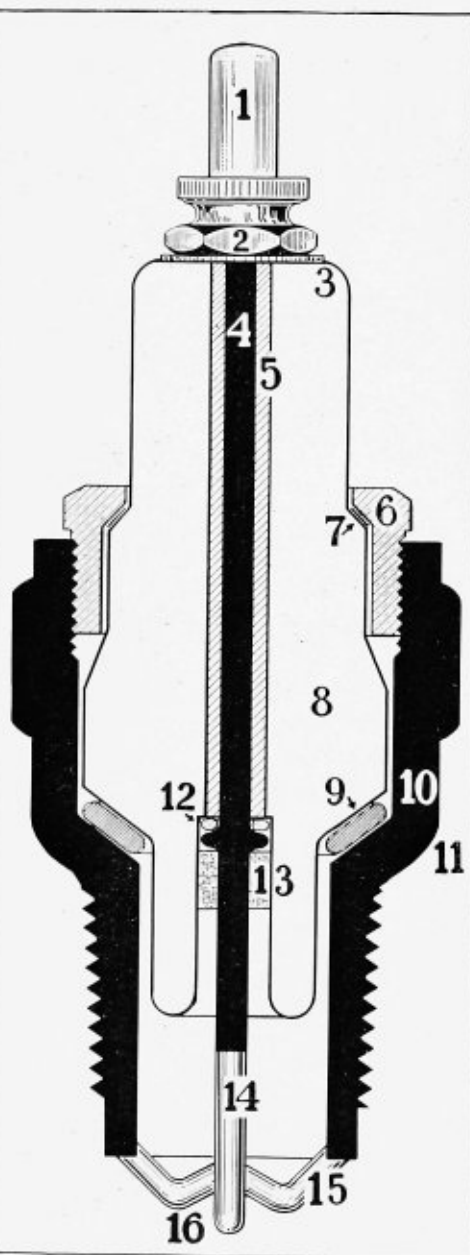
Abbott-Detroit	7/8	Cutting	1/2	Lexington	7/8	Pullman (old)	1/2 Long
Adams-Farwell	1/2	Davis	7/8	Lion	1/2	Pullman Battery	7/8
Alco	1/2	De Dion	Metric	Little 4	7/8	Pullman Magneto	3/4 Long
Alpena	7/8	Detroit	7/8	Locomobile	7/8	Pullman "O" 30	7/8 Long
American	7/8	Dispatch	1/2	Lozier	7/8	R. C. H.	1/2
Ames 1913-14	7/8	Dorris	7/8	Marathon	1/2	Rainier	7/8
Ames (old)	1/2	Duryea	7/8	Marion	7/8	Rambler	1/2
Amplex	Metric	E. M. F. "30"	1/2	Marmon	7/8	Regal	1/2
Angus	1/2	Elkhart	7/8	Marquette	7/8	Renault	Metric
Apperson	7/8	Empire	1/2	Mason 1913-14	7/8	Reo	1/2 Long
Atlas 1914	7/8	Empire	7/8	Mason (old)	1/2	Republic	7/8
Atlas (old)	1/2	Easer	1/2	Matheson	1/2	Rogers	1/2 Long
Auburn	1/2 Long	Everett	7/8	Maxwell	1/2	Royal Tourist	7/8
Auburn	7/8	F. I. A. T.	7/8	Mercer	7/8	Russel, Model "R"	1/2
Austin	7/8	Firestone	7/8	Metz (old)	Metric	Russel "22," "26," "38"	Metric
Autocar	7/8	Flanders "20"	1/2	Metz "22" 1912-13	1/2	Russel Knight	Metric
Babcock	7/8	Ford	1/2	Michigan Buggy	7/8	S. G. V. 1911	Metric
Babcock	1/2 Long	Franklin	7/8	Middleby	1/2	S. G. V. 1911-13	7/8
Badger	1/2	G. J. G.	7/8	Midland	7/8	Salter	1/2
Bartholomew	7/8	Garford	7/8	Miller	7/8	Sauter	Metric
Belmont	1/2	Gaylord	7/8	Mitchell-Lewis	1/2	Schacht 1 D	1/2
Benz	Metric	Glide	7/8	Moline	1/2	Schacht 1911-12	7/8
Bergdoll	7/8	Great Southern	7/8	Moon	1/2	Sebring	7/8
Berkshire	1/2	Great Western	1/2	Morse	Metric	Sebring	1/2
Brush	1/2	Halladay	7/8	National	7/8	Selden	7/8
Buckeye 1910	1/2	Halladay	7/8	Norwalk	1/2	Simplex	Metric
Buckeye 1911	7/8	Haynes	7/8	Oakland	1/2	Spaulding	7/8
Buick 1907 "F"	1/2 Long	Havers	1/2	Ohio	7/8	Speedwell	7/8
Buick "10"	7/8 Long	Henderson	7/8	Oldsmobile (old)	1/2	Spoerer	7/8
Buick "16-40"	7/8	Herreshoff	Metric	Oldsmobile 1912-13	7/8	St. Louis	7/8
Burg	7/8	Hudson	7/8	Only	7/8	Standard	7/8
Cadillac 1910-11	1/2	Hupp	7/8	Overholt	1/2	Staver	7/8
Cadillac 1912-14	7/8	L. H. C.	1/2	Overland	1/2 Long	Stearns 1912-13-14	7/8
Carter Car	1/2	Imperial	7/8	Packard	Metric	Stearns (old)	Metric
Case	1/2	Jackson 1913-14	7/8	Paige-Detroit	7/8	Stearns Knight	7/8
Chadwick	7/8	Jackson (old)	1/2 Long	Palmer Singer	7/8	Stevens-Duryea	7/8
Chadwick	Metric	Kearns	1/2	Panhard-Kinght	Metric	Stoddard Dayton	1/2
Chalmers	7/8	Keeton	7/8	Pathfinder	7/8 Long	Stoddard Knight	Metric
Cino	7/8 Long	Kelsey	1/2	Patterson	1/2	Streator	1/2
Clark	1/2	Kenmore	1/2	Patterson	7/8 Long	Streator	7/8
Colby	1/2	King	7/8	Peerless	Metric	Studebaker	1/2
Cole "30" 1910	1/2	Kissel Kar 1912-14	7/8	Pennsylvania	7/8	Stutz	7/8
Cole "30" 1911-13	7/8	Kissel Kar (old)	1/2	Petrol	1/2	Triumph	1/2
Corbin "30"	1/2	Kline Kar	7/8	Pierce-Arrow 1910-11	Metric	Vellie	7/8
Corbin "40"	7/8	Knox A. G.	Metric	Pierce-Arrow 1912-13	7/8	Warren	7/8
Corbett	7/8	Knox H.	1/2	Pierce Racine	1/2	Wayne	1/2
Correja	7/8	Knox 1908-9	7/8	Pittsburgh	1/2	Westcott	7/8
Crane	7/8	Knox R 1910-12	7/8	Pope Hartford	Metric	White	Metric
Crawford	7/8	Knox 1913	7/8	Pratt-Elkhart	7/8	Winton K	1/2 Long
Crow	1/2	K. R. I. T.	1/2	Premier	1/2	Winton 6 1910-13	1/2
Croxton	7/8	Lambert	1/2	Premier	7/8	Winton 1914	7/8
Cunningham	7/8	Lambert	7/8			Zimmerman	1/2





## JUMBO FORD SPECIAL Sixteen Reasons Why

Jumbo Jiant is the most reliable plug on the market



1. Terminal will fit *any connection*.
2. Nut holds electrode firmly in place.
3. Rounded edge prevents plug from *short circuiting* on the outside.
4. Heavy electrode cannot be *burned* or *broken off*.
5. Extra insulator *insures spark* in case porcelain is cracked or broken.
6. Large bushing holds insulator *at top* thus adding greatly to its mechanical strength.
7. High compression asbestos washer allows for the *upward expansion* of the insulator and makes an *even seat* for the bushing.
8. Massive insulator *will not crack* from the heat.
9. Large copper asbestos washer allows for the *outward expansion* of the insulator and *prevents compression leakage*.
10. Hugh shell *protects insulator* and is roomy enough for the *massive construction*.
11. Special finish on shell *prevents rust* and preserves its attractive appearance.
12. High compression asbestos washer allows for *downward expansion* of insulator.
13. Elastic cement *strengthens the lower construction* of insulator and *prevents compression escaping* around the electrode.
14. Massive points made of the highest grade nickel alloy give the *hottest possible spark*, *prevent pre-ignition* at the points and *will not burn off*.
15. Two large shell electrodes are *fastened at both ends* and cannot be *twisted* or *bent out of position*.
16. Downward slope of electrodes from the points of contact allows the oil to run off thus *preventing fouling*.











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